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JPRS Report

Epidemiology

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11 July 1991

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ANGOLA

New Impetus Given to Vaccination Campaign

91WE0351A Luanda JORNAL DE ANGOLA
in Portuguese 18 Apr 91 p 2

[Article by Jose Luis Mendonca]

[Text] By achieving a vaccination coverage rate of at least 70 percent in Luanda for all vaccines in 1990, the launch of the PAV (Extended Vaccination Program) can be considered an important success against the backdrop of the socio-economic and security crisis the country is experiencing, as well as the general lack of commitment in many areas.

This is the conclusion of the report developed by the UNICEF health sector, in which, as shown in one of the accompanying graphs, one of the most surprising numbers is for the third dose of the triple vaccine (diphtheria/polio/tetanus), which rose from 11,625 in 1987 to 45,649 doses in 1990.

The routine reports indicate that the coverage for the third dose of the triple vaccine and oral polio doubled in 1989 over 1988 and then increased by an additional 60 percent in 1990.

In two years, the number of injections of the triple vaccine has risen by a factor of three and a half, and for polio, by a factor of three.

How is it possible, given the constraints mentioned above, for the health sector to have succeeded in achieving these results?

New Strategy

The Health Ministry has changed its strategy for the PAV, placing the emphasis on routine vaccinations in the health centers and posts and abandoning the vaccination campaigns.

This new strategy is based on strengthening the fixed vaccination posts and increasing social mobilization and information activities, supported by increased vaccination services at the health units.

The kickoff in June 1989 was headed by the President of the Republic, an indication of the high political backing the vaccination program was receiving at the time.

An important key for opening the doors widely for the accelerated PAV was the broad social mobilization, health education, and public information activities, for increasing the attendance of mothers at the permanent vaccination sites, while at the same time raising the level of training of the agents and the involvement of the cadres in the community-level organizations.

Mothers began to acquire the habit of making regular visits to the health centers and posts, where they could be

offered integrated primary health care services. Special attention was given to verifying completion of the vaccine schedules.

An important role was carried out by the groups of voluntary activists trained by the Health Ministry and UNICEF specialists to monitor attendance at the vaccination posts and track down the missing mothers in their homes. Some 700 activists were trained in Luanda alone.

More than 500,000 pamphlets, posters, calendars and business cards have been distributed to support this activity.

The acceleration increased dramatically in Luanda in 1989, both in terms of perfecting the operations at the vaccination posts, and in expanding the social mobilization activities.

Obstacles

But not everything has been a bed of roses in the PAV acceleration campaign. Two major obstacles—the decline in social mobilization activities and the constant interruptions to the city's electricity supply—partially explain the lack of completion of the global goal that had been established: 75 percent for all vaccines.

The constantly worsening political and economic situation undoubtedly contributed to the general lack of completion of the promises made in many areas.

Sabotage of the high tension electrical lines seriously affected refrigeration capacity and forced the taking of emergency measures to ensure continuity of the program.

Communications and transport (for personnel, vaccines and equipment) were impeded by difficulties of various types.

Expansion

The initial plan was to establish the PAV acceleration in Luanda and then expand it progressively to other provincial capitals, beginning with those with the greatest population and best access facilities.

In December 1989 the acceleration was inaugurated in Lubango and despite an increase in activities, a survey carried out last February indicates that there has not been a significant increase since the beginning of 1990.

This year the acceleration has been broadened to other cities, Lobito-Baia Farta, Benguela, Caxito, Huambo and Cabinda. Additional surveys will be conducted during the current year in these cities, and in the six additional cities that comprise the national expansion plan of the PAV acceleration.

Transportation and communications difficulties for the supervisory teams, vaccines and equipment are a constraint to an optimal launch outside of Luanda, and for that reason the results are far from those to be desired.

Nevertheless, in many of the provincial cities it is possible to observe a definitive increase in the quality and coverage of the PAV.

This increase will be sustained and expanded with UNICEF's support, primarily in the areas of social mobilization and maintenance of the refrigeration links, to ensure 75-80 percent coverage for all the vaccines.

Collateral Results

Under the current PAV acceleration strategy, the national capacity has been strengthened and other programs involving primary health care have benefitted from increased public attendance at the public health units.

The best example is the Program for the Promotion and Monitoring of Growth. A survey carried out in the capital in 1990 showed an increase from 42 to 69 percent in the possession of growth-monitoring cards, and from 25 to 63 percent in participation in at least two monitoring sessions, with the number of infants under five that are being monitored for weight increase rising from 58,135 in 1988 to 99,775 in 1989 and to 292,200 in 1990.

Similarly, the proportion of patients treated in the peripheral health centers increased with respect to those attended in the main hospitals.

In 1988, 172,211 sick children were treated in the health centers and posts in the city of Luanda, a number that increased to 290,136 in 1990.

The first priority for the current year will again be the PAV impact. However, the weakened epidemiological monitoring system makes any observed trends untrustworthy.

To ameliorate this situation, UNICEF is strongly supporting the health sector in strengthening the information and epidemiological monitoring systems, just as it will also promote development of the routine reporting system, and through the observer-site methodology, it intends to monitor events at the community level.

Official Gives 1990 Cholera Figures

91WE0362A Luanda JORNAL DE ANGOLA
in Portuguese 24 Apr 91 p 8

[Text] Twenty-seven persons died of cholera in Angola in the first two months of this year, Julio Leite, the national director of public health, told the Angop [ANGOLAN PRESS AGENCY] in Luanda today (Tuesday).

He added that the number of cholera cases declined in 1990 as a result of the treatment of the water used for popular consumption. In that year, there were 10,840 cases of cholera, which caused 807 deaths.

The origin of the epidemic is the poor hygienic-sanitary conditions in the environment and the heavy rains, which alter the characteristics of the river waters.

The provinces most seriously affected are Luanda, Kwanza-Norte, Bengo (Norte), Kwanza-Sul, Benguela (Center), Huila, and Namibe (South).

According to the director, three hospital wings for the treatment of cholera in adults are currently under construction in Luanda. At the present time, there are 80 beds for children.

Since the new outbreak in April of 1987, 60,735 cases of cholera have been reported, resulting in 4,353 deaths.

Cholera Treatment Center Inaugurated

91WE0362B Luanda JORNAL DE ANGOLA
in Portuguese 3 May 91 p 2

[Text] Yesterday Dr. Flavio Fernandes, the minister of health, commissioned the new hospital wing for the care of cholera patients in the municipality of Sambizanga in Luanda. It is designed to provide treatment for the cases of acute diarrhea which may occur in that locality.

This wing was built by a Portuguese enterprise, Teixeira Duarte, with financing from the nongovernmental organization Norway Popular Aid (APN). It was budgeted at \$380,000. The equipment installed was financed by the Italian embassy.

This hospital facility has three sections—one for reception, a clinic, and two hospital wards (where the patient beds are located), as well as a small morgue. It will operate around the clock with a team of two physicians, 16 nurses, and a cleaning staff of six.

The wing began operating as of today, but it does not yet have running water. To correct this situation, the EPAEL [Public Water and Electricity Company] stepped in to install a water tank with a capacity of 750 liters. A motorized pump and a generator to supply electrical energy were also installed.

Cholera Figures for Luanda, Kwanza-Norte

91WE0362C Luanda JORNAL DE ANGOLA
in Portuguese 3 May 91 p 2

[Article by Pereira Santana]

[Text] Of the 432 patients treated at the Josina Machel Hospital in Luanda since the beginning of last month, about 20 have died in the wake of the outbreak of cholera which has struck the capital city.

According to Dr. Braz Ferreira, the director of the national program for combating cholera, the high level of incidence in this outbreak is the result of an environmental phenomenon which occurs in the periods following the rainy season, when river currents carry along tremendous quantities of garbage, thus causing heavier contamination of the water supply. The neighborhoods

suffering the greatest contamination are Samba, Prenda, Ngola Kiluange, and Maianga.

It should be noted that the last major cholera epidemic in Luanda occurred in May 1989 as a result of the precarious basic sanitation conditions in the city. The numbers of cases reached 300 per day.

The province of Kwanza-Norte, in turn, reported 22 cases for the province as a whole, and one death, in the first quarter of this year.

Sources in the health sector in that province say that cleanup of the environment by the population is one of the basic prerequisites for the elimination of the disease.

One of these sources added that the hospital laboratories in the province lack the reagents needed to combat the epidemic effectively, and this makes diagnosis of the disease difficult, he said in conclusion.

It should be noted that during 1990, a total of 448 cases, leading to the death of 67 persons, was reported in that province.

National Public Health Office statistics indicate that 27 persons died of cholera in the country in the first two months of this year.

It is important to emphasize that since the outbreak in April of 1987, 60,735 cases have been reported, leading to 4,353 deaths.

Cholera Kills 42 in Luanda Province

*MB2805073691 Luanda Radio Nacional Network
in Portuguese 0600 GMT 28 May 91*

[Text] A total of 42 people died of cholera in Luanda Province between April and May. Dr. Isilda Neves, provincial coordinator of the campaign against cholera, said that 40 cases of cholera were reported per day in April, whereas in May that figure rose to 120 cases per day.

Dr. Neves added that the outbreak spread over the past few months due to the March and April rains which coincided with a breakdown in the Luanda water supply system.

The most affected districts are Manhanga with 485 cholera cases, Sambizanga with 203 cases, and Samba with 183 cases.

Efforts To Combat Sleeping Sickness Noted

*91WE0362E Luanda JORNAL DE ANGOLA
in Portuguese 1 May 91 p 2*

[Text] A program to control the tsetse fly is being carried out in the municipality of M'Banza Congo and its environs for the purpose of eliminating trypanosomiasis (sleeping sickness). This information was revealed in M'Banza Congo last week by the provincial health representative in Zaire, Luzito Mbiyavanga Simao. He went

on to say that the program to combat the tsetse fly involves placing traps in these localities. This has been under way since the middle of 1990, resulting in the trapping of about 25,000 insects, while during the first quarter of this year, 30,000 were caught. Luzito Mbiyavanga Simao termed the campaign positive, because it has made it possible to examine about 16,306 individuals, 538 of whom are suspected of having the disease, while 124 others were found to be carriers.

Uije Vaccination Campaign Described

*91WE0362F Luanda JORNAL DE ANGOLA
in Portuguese 9 May 91 p 2*

[Article by David Filipe]

[Excerpts] Uije—The diversity of sources supplying water to the city of Negage has led to various problems which it is difficult to resolve. [passage omitted]

In this connection, the Office of Public Health and Endemic Disease Control vaccinated more than 5,000 children against measles between the second half of April of this year and the present. This disease has spread throughout this region with great intensity.

In fact, 18 vaccination posts have been established for the city of Uije and the surrounding areas. The campaign begun in April will end in the middle of June.

According to information provided by Dr. Lubanzo Nzuzi, the director of this body, the epidemic has already taken the lives of more than 200 children in the municipalities of Uije, Negage, and Quitexe.

Lubanzo Nzuzi announced a program of vaccination against cholera to be launched shortly, since an epidemic of this disease has already been reported in some parts of the province.

Regarding cholera, the provincial director of public health and endemic disease control placed responsibility with some parents, who, he said, neglect hygiene norms in their homes.

"Poor nutrition in the homes and the failure to meet other vital needs are without a doubt the main causes of these epidemics which are affecting our province," Dr. Lubanzo Nzuzi said.

Luanda Outskirts Conducive to Malaria

*91WE0362G Luanda JORNAL DE ANGOLA
in Portuguese 28 Apr 91 p 2*

[Article by Jose Luis Mendonca]

[Text] "Katolotolo" is the name the people in Luanda give to the most lethal form of paludism, or malaria, a disease which the Greek physician Hippocrates had already described 500 years before the birth of Christ. Today, in this city, it is the leading cause of death in children under five years of age. The causal agent, the

parasite *Plasmodium falciparum*, appears resistant to chloroquine in some cases. The people say that a person suffering from katolotolo should not receive an injection, or he might die. What should be done is to rub the body of the patient with a powerful ointment based on petroleum and garlic. This is worrisome, and this bit of popular wisdom is regarded as a serious source of concern by the National Endemic Diseases Office at the Minsa [Ministry of Public Health]. That office, working jointly with the UNICEF, carried out a "Survey on Malaria" between the eighth and the 19th of this month in the three municipalities with the highest population density and level of prevalence of this disease—Cazenga, Kilamba-Kiayi, and Sambizanga.

Stagnant water is a paradise for the *Anopheles* mosquito, the agent which transmits this disease. The slum quarters of Luanda are malarial breeding grounds which, with the recent rains, have degenerated into authentic lacustrine habitats, with their creeks and ditches containing putrid water, the mudholes and untreated garbage, and the pervasive miasma.

But the *Anopheles* mosquito also reproduces readily in the lowland areas, and in almost every other corner of this unresponsive African capital where fashion, ranging from the social and the worldly to the political and the more important kinds, constitutes the law.

One of the basic factors is the lack of running water in the majority of the urban areas, making it necessary for each family to store water for days on end under sanitary conditions which are hardly desirable. However, the people have no alternative, due to the lack of appropriate resources. One such resource would be the fiber-cement tanks which the CIMIANTO [expansion not given] is not yet able to offer for free on the market. Anyone entering a home, or even a public office, will note a touch of refinement—a container of houseplants half-submerged in water. If one looks closely, he will see swimming in the water scores of dark larvae the size of a grain of rice. These are the future transmitters of the malaria parasite—young mosquitoes.

Many people fail to make this connection. Others do not know how the mosquito reproduces, and still others have better things to do than worry about the larvae in plant containers and other water-storage facilities.

In addition, the networks of cracked water and sewage pipes are leaking into the public streets—evidence of the embarrassment and the fatigue of a large collective which has been disrupted for 15 years and has not yet had the opportunity to clean up its own house and preserve its environment.

It is in these ponds filled with greenish water and in the great lagoons (the Kinaxixe Lagoon, for example—is it a breeding ground for millions of mosquitoes?), in the flooded foundations of unfinished or badly maintained buildings (has anyone visited the reinforced concrete structure behind the Josina Machel Hospital?) that our

"fellow citizens" are living unmolested, laying their eggs, and taking flight to worsen this headache which is affecting us all.

Narrow Alleys

Almost at the end of the survey, we accompanied the malaria research team along those narrow alleys, where sometimes only a single emaciated man is to be seen, and the drama of the slum sectors becomes real—out there in Sambizanga, near the Miramar gulleys.

The group gathered in front of the Provincial Health Office building. A passenger car, a truck, and two large jeeps transported about 100 survey personnel to the Sambizanga Municipal Commissariat.

In the courtyard of the Commissariat, the group made its preparations. The survey personnel were organized into teams, one for each previously selected key site (in this municipality, there were six).

Each key site was assigned five supervisors. Under each supervisor there were four teams of investigators (each with two members), four technicians, and four laboratory assistants.

An organizational bustle was under way. The two general coordinators, Dr. Ana Vaz, of the National Endemic Diseases Office, and Dr. Guadalupe Verdejo, from the health department of the UNICEF, had their hands full.

The teams were tense. Some early morning jokes served to relax the taut nerves somewhat. The doctors and nurses in the Doctors Without Borders ONG [nongovernmental organization] displayed professional calm.

And all this was no wonder. Everyone was faced with an almost uninterrupted five-hour task (with only a brief halt for some sandwiches, pastries, and cold drinks), going back and forth, from house to house, to an average of 550 homes per day. They were to ask questions and note down the answers, to determine the reserves of water being stored, to collect blood (large-drop samples) from the children under two years of age, the individuals with symptoms of malaria, and those who had contracted it the preceding week.

And this was only the 15th day of work, but the group was beginning to show signs of having had enough. Their spirit did not flag only because the coordination group was there, with its exemplary sense of organization and consciousness-raising.

The operation began in this area at about 0930 with furnace-like heat, while the ground was soaked with the previous evening's rain.

Up above the Miramar gulleys, the flimsy cubicles fashioned of corrugated metal panels and the leftovers from other lives perched precariously above the abyss, like miniature castles of an era gone by, or the iron nests of prehistoric monsters. From high above, some children were gazing down at us.

And that instant provoked us to think about why it is that our universe is corrupted. For because of the international situation which does not let those of us in Africa be ourselves, we are forced to buy weapons instead of chloroquine, mosquito nets, shoes, and clothing for those half-naked children who have only torn and filthy rags to wear and who stared down at us as if we were creatures from another world.

Guided by the zonal coordinators, we advanced into the slum quarter. In each alleyway, a little trickle of dark, grayish water was surrounded by chickens, dogs, pigs, and children. In each alleyway, there was a minuscule shrine, beside which candies, cakes, other pastries, and flies were sold from the top of empty milk crates. In each alleyway, children without shirts, without water with which to wash themselves, were selling candies, pastries, and flies!

Questions and Answers

How does one enter a slum quarter? Through an opening 20 centimeters wide! A pregnant or heavy woman certainly could not get through. Would we?

We did, and entered the first house. The master of the house was Garcia Dala, 35 years of age.

The interviewer opened his notebook and began to inquire about the public and semiprivate aspects of Garcia Dala's life. Garcia's household included six persons. His wife was 21 years old. They brought water to the house from sources in the area, at 100 kwanzas per barrel, or 50 per bucket.

"Mr. Dala, do you know how malaria is spread?"

That he knew. It is spread by microbes which come from the mosquitoes which light on standing water, and then bite individuals and cause malaria.

The symptoms are body heat, but the patient feels cold.

Mr. Dala was asked if he knew what to do when someone was ill.

"The first step is to take a chloroquine pill. And if one is no better in a day or so, then we go to the medical station."

Mr. Dala was asked what he did to keep mosquitoes out of the house.

"We disinfect with Sheltox before going to sleep, or we swat the mosquitoes."

He was asked if anyone in his household had died of malaria between the beginning of Lent last year and the same date this year.

"No, I think that my children have only suffered from constipation. But this problem of malaria, no."

Mr. Dala saw us as far as the back door. There in plain sight were some urchins with barrels and shower equipment.

We went on to the next house. It belonged to a man more than 45 years of age. He let us enter and sit down at his table, where he was reading Engels' "Origin of the Family, Private Property, and the State." On the wall there was a map of Africa, some clippings from calendars showing European landscapes, and a frame containing many family photographs.

This householder has five children. They had had diarrhea problems in the household, but now everything was fine.

He believed that it is flies which transmit malaria, along with garbage, standing water, and poor hygiene.

He said that the flies settle on the garbage, and then on food, and that is where malaria comes from.

As symptoms, he mentioned body tremors, itching, chills, and bad headaches.

One of our host's sons came in and asked for water. A young girl opened the icebox, and we could see that it was chock-full of cans of Sagres-Europa.

Our interlocutor was at home at that hour because he did shift work at an oil enterprise—one week on one schedule, the next on another.

He explained to us that to combat mosquitoes, he closed the windows and used Sheltox. Then he opened the windows, put a few drops of perfume in a basin of water, and sprinkled the walls with this "holy water" to counteract the smell of the insecticide.

No one in this household had died of malaria, or even had the disease, in the past year. The family had only suffered from headaches and diarrhea.

Our host said that when someone in his family is sick, they go to the medical station and immediately obtain medicine. His house had electric lights and a toilet in excellent condition. In the backyard, a 200-liter barrel marked "Catarina" stored water.

The third house on this interview tour was that of a mother who was initially apprehensive, because her husband was not at home. But after a short exchange, she agreed to let us into her home. Her three children followed.

This woman's home had only two very sparsely furnished rooms. The living room contained only a 200-liter barrel of water, a table and two chairs, a small central table and another cane chair, and an oil lamp.

The dishes from the previous evening's supper were still in a basin on the cement floor. Could it be that she did not have the 100 kwanzas with which to buy water?

The ages of this woman's children suggested there had been family planning—probably of the traditional, natural sort, based on the length of the suckling period.

Sandra, the youngest, was one year old, the middle child three, and the oldest six.

The mother was 21, but looked as if she were over 30. Her skin was splotched and rough. A sleeping daughter strapped to one's back soon makes a mother's legs ache.

The drinking water was kept in a jug in the other room. The baby had been sick the preceding month, and the mother had given her one chloroquine tablet, plus the medicine prescribed at the medical station, which she bought at the shrine.

She did not know how malaria is spread, nor how a person with the disease feels. When someone is sick, she takes him to the hospital. She uses Sheltox to keep the mosquitoes away.

Two other urchins, seven and 10 years old, hovered near the researcher, and I took the opportunity to question them as well. Neither of them went to school.

The laboratory technician arrived. He pricked Sandra's little finger, after disinfecting it with alcohol, and collected two drops of blood, which he placed on a glass plate. He spread plasma on another plate, made some marks on one, stowed everything in a kit, and we left. The little child began to cry.

The next dwelling consisted of three little wooden huts and two of adobe on a cramped courtyard, with a single toilet for five families.

Tereza, a little girl of 11, was sick. She had already taken two pills. She had not yet gone to school, having just come from an outlying area. In school one needs paper, and where would she find paper?

Drops of blood were taken from her and from two other children. Outside, the little ones in the neighborhood were shouting. Ndumba Ndombele had stung them!

The Mulemba Quarter

Sambizanga is a huge municipality. Over toward Mulemba Xangola, there is the Ngola Kiluanje neighborhood, which is half slum and half popular quarter, in which minimally equipped masonry houses prevail.

We went there the following day.

The survey work did not begin until 1000. There were still some problems organizing the groups in the field. Some supervisors were missing.

But there are problems everywhere. What would life be without them?

After the initial meeting at the neighborhood health station, we set off for yet another day of work.

At the first house we visited, Maura Domingas, a widow 40 years old, told us that she did not know how malaria was spread. In her living room we saw a drum of water in which there were mosquito larvae.

She said that someone with malaria has bad headaches.

Mother Domingas was asked what she does when someone in her household has malaria.

She said she moistens a cloth and covers the patient in order to reduce the fever.

She was asked what she does to keep mosquitoes out of the house.

She said there was nothing one can do except keep covered with a cloth.

Mother Domingas came from Huambo seven years ago. Her husband died in the military service back in Huambo. Her oldest daughter, 17 is now married to a tailor.

Mother Domingas only has one arm. She fell off a speculator's truck, and her arm had to be amputated. She survives with the help of family members and thanks to a coop full of chickens and ducks.

The morning wore on. This would be a long day. There were 130 interviewers in the field.

Nearby, an urchin a year and a half old whose finger had just been pricked launched into a formidable spell of shrieking. Tears and mucus from his nose ran down his face. This was his painful contribution to the campaign for health.

No Miracles Expected

The malaria survey did not end in the neighborhoods. At the present time, the teams analyzing the results are meeting in a seminar at the National Oncology Center to establish the known and updated facts about the status of this terrible endemic disease in these three municipalities.

New answers which can be used in the process of controlling the propagation of this disease will emerge from this investigation.

But this battle will obviously be waged using the classic methods. They include the care which must be taken with standing water, hygiene measures, and the use of the properly prescribed medicines for confirmed cases.

This is the case because only toward the end of the century is it expected that an effective vaccine will be developed against malaria, of which the lethal form caused by the parasite *Plasmodium falciparum* has managed to develop an unexpected resistance to chloroquine.

The WHO estimates that a third of the population on the planet, about 1.67 billion persons, has been exposed to the disease, and that the number of individuals already infected is about 100 million.

However, far from anticipating any kind of miracle, the study which is now being carried out is designed to update the information available about the conduct of the population with regard to the disease, to determine the prevalence of malaria in this rainy season, to establish the mortality rate in the areas being studied, mainly among infants, and to assess the resistance of the *Plasmodium falciparum* to chloroquine.

The results will be announced at the premises of the FILDA [Luanda International Fair] in Cazenga this coming 4 May.

We will be there in order once again to learn how the population is co-existing with the terrible disease known as katolotolo.

Health Ministry Reports on Malaria Occurrence

91WE0362D Luanda JORNAL DE ANGOLA
in Portuguese 7 May 91 p 3

[Article by Pereira Santana]

[Text] The results announced by the National Endemic Diseases Office of the Minsa [Ministry of Public Health], which carried out a "Survey on Malaria" between the eighth and the 19th of last month, working together with UNICEF, revealed the existence of stagnant water and piles of garbage, as well as home storage of water reserves by 98 percent of the population. This study covered the three municipalities where population density and the prevalence of malaria are the greatest—Cazenga, Kilamba Kiaxi, and Sambizanga. These areas were shown to be potential breeding grounds for the *Anopheles* mosquito, an agent for the transmission of malaria, yellow fever, and katolotolo [local name for the most lethal form of malaria].

These facts, which were announced during a ceremony held last Saturday in the meeting hall of the FILDA [Luanda International Fair] to present the results of the survey, show that the battle against this disease will obviously have to be waged by the classic methods. They include the elimination of pools of standing water, hygiene measures, and the use of the properly prescribed medicines for confirmed cases.

The purpose of the presentation of the results, which represent the first stage of the work carried out, was to establish what understanding, attitudes, and practices with regard to this disease are to be found among the residents of the municipalities in question. In the past three years, malaria has become the leading cause of death for children under five years of age and a major factor in the mortality rate for mothers.

As a disease directly linked with the socioeconomic conditions in any population group, malaria has moved beyond the health sector to become a national problem, not only because of the number of deaths resulting from it, but also because of the loss of labor days it causes.

The results presented in the four-page document indicate that in the work done by more than 150 individuals, including interviewers, supervisors, and laboratory technicians over a period of about 8 days, a total of 32,118 individuals were surveyed in the 4,392 homes visited in the three municipalities, which had an average of six residents each.

Following the survey, a seminar was held at the National Oncology Center. At the seminar, the teams analyzing the results established definite and current data on the terrible situation with regard to this disease at the key sites in the municipalities surveyed.

With regard to the water supply, it was learned that 56 percent of the residents of these zones have running water, 21 percent buy water from tank trucks, 13 percent obtain it from public fountains, 3 percent draw it from canals, 1 percent obtain it from wells, and 7 percent obtain water from other sources regarded as unacceptable.

According to this four-page document, 98 percent of the population stores water at home. The main containers used are drums and jerrycans (which are also regarded as breeding grounds for the development of the "bug" which carries malaria). It was also established that 80 percent of the houses have protected water-storage facilities.

The document also indicated that 27 percent of the fever cases, both in children and in adults, are treated in health units, and also by private nurses.

These percentages were interpreted by Minsa officials as the result of the lack of medicines and other problems faced by the health units.

The survey also established that the medicine most commonly used to treat the disease has been chloroquine. Treatment with home remedies in 1 percent of the cases was noted as an important area to which greater attention must be paid.

Only 38 percent of the persons questioned said that they knew how malaria is spread.

It was also learned that the most common method used to combat mosquitoes has been applications of Sheltex and petroleum.

One of the questions asked during the survey concerned what people do when a family member has malaria. Sixty percent said they go to the health station, 20 percent administer medicine at home, and 7 percent said they go to private nurses.

The document in question indicated that the estimated infant mortality (in children under one year of age) has remained stable at about 10 percent in recent years for all three municipalities.

In his address at the conclusion of the ceremony, Dr. Jorge Dupret, the national director for endemic diseases,

emphasized that this study was carried out not simply to establish the situation with regard to this disease in these zones, but also "to inform the local authorities about this work, so that they will be able to utilize strategies leading to an improvement in the social situation of the people, with their full involvement, using simple measures and the proper technologies, which require effort and personal dedication more than major investment," he emphasized.

Dr. Ana Maria Vaz, of the National Endemic Diseases Office, who is one of the general coordinators of the project and who also spoke during the ceremony, which lasted about three hours, said for her part that the development of the malaria situation between 1984 and 1989 has resulted in the approximate tripling of the number of deaths.

This doctor further recalled that in 1984, malaria ranked sixth among the causes of death in children, while by 1989 it had become the leading cause of mortality.

Another speaker, Dr. Rosalina Neto, stated that of the approximately 90,000 persons living in Luanda in 1988, 40,000 suffered from malaria, and of these, about 30 percent died. "The number of deaths resulting from this disease has increased considerably up to the present," she stated.

According to World Health Organization (WHO) estimates, a third of the population on this planet, about 1.67 billion individuals, is exposed to this disease, and the number already infected comes to about 100 million.

However, far from predicting any miracle, the survey taken recently was merely intended to update the available information about the conduct of the population with regard to this disease, to assess its prevalence in the period following the rainy season, to establish the mortality rate in the areas under study, mainly among children, and to assess the resistance of the *Plasmodium falciparum* to chloroquine.

It is important to note that in addition to the National Endemic Diseases Office and UNICEF, the Provincial Health Office, the Luanda Technical School of Nursing, Doctors Without Boundaries, and the respective municipal commissariats also participated in this work.

In this connection, certificates of participation were presented to all of those who worked on this important project. Also, at the close of the ceremony, there was a cultural offering. The theater group from the Petro Atletico workshop presented a play called "Makas do paludismo na Banda."

Jose Macamo Hospital Being Rehabilitated

91WE0362H Luanda JORNAL DE ANGOLA
in Portuguese 4 May 91 p 2

[Text] The rebuilding of the outpatient clinic and the health center at the Jose Macamo General Hospital in the capital of the country is expected to be completed

this month. Meanwhile, the reconstruction of the analysis laboratory, under Spanish cooperative auspices, is also under way at that hospital. This work is expected to be concluded by this coming June.

The rebuilding of the health center and the outpatient clinic, according to Basilio Dengo, director of the Jose Macamo General Hospital, is being financed by the European Economic Community through the office of the first lady, while the rebuilding of the laboratory is a Spanish cooperative effort.

According to Basilio Dengo, the work on the project is proceeding at a satisfactory rate.

Yesterday, Jaime Abrisqueta, the Spanish ambassador to Mozambique, visited the Jose Macamo General Hospital in order to assess the progress made in the rebuilding of the laboratory.

On that occasion, Jaime Abrisqueta said that because the needs of this hospital are growing steadily in every respect, it will be the focus of special concern within the Spanish cooperative effort. The amount made available for this year for health aid to our country is estimated at 70 million pesetas (1 peseta is equivalent to 13 meticals).

The Spanish ambassador to Mozambique said that the technical aid will be provided through the Doctors Without Borders organization.

This Spanish diplomat said that one of the most important activities in this cooperative effort will have to do with the training of Mozambican health personnel, with a view to reducing the dependence on foreign personnel.

To this end, Jaime Abrisqueta said, the Doctors Without Borders organization already has a program for training the Mozambican personnel assigned to the Jose Macamo Hospital in the areas of nursing, pediatrics, adult medicine, laboratory work, midwifery, and gynecology, among others.

This project, which was launched in 1988, has already trained at least 100 individuals. According to the plans for the project, another 40 individuals from that hospital will benefit from training this year.

At the present time, the Doctors Without Borders organization has made a total of five physicians available to the Jose Macamo General Hospital.

Commenting on the Spanish cooperative effort, Basilio Dengo, the director of the Jose Macamo Hospital, said that it is most advantageous, because it has enabled the hospital to acquire not only medical personnel, but equipment as well.

All of the equipment necessary for launching the operations of the laboratory, financed by the Spanish cooperative effort, has already been installed at the hospital.

BURKINA FASO

Joint Health Commission With Mali Begins First Session

AB3005101291 Ouagadougou Radiodiffusion Nationale du Burkina Radio in French 1900 GMT 27 May 91

[Text] The first meeting of the Mali-Burkina Faso Permanent Committee on Health began this morning in Bobo Dioulasso. The deliberations, which will last four days, are being attended by health officials from both countries. The Malian delegation is led by Zakaria Maiga, technical adviser to the Malian minister of health. Maxim Zongo gives us the details on points to be discussed at the meeting.

[Begin recording] During this current session, participants will attempt, in particular, to gain deeper insight into both countries' health systems, in regard to the organization and implementation of specific plans and programs. They will also discuss the rational and efficient exploitation and utilization of traditional therapeutic potentialities which are often disregarded. For Comrade Mathe Zien, permanent secretary of the Ministry of Health and Social Action, who chaired the ceremony, this first session offers the opportunity to lay the basis for true cooperation in the field of health to the benefit of the two neighboring countries which share borders. To this effect, there should no longer be any legal and administrative barriers in the utilization of health services by our people living in border areas.

It is worth noting that this present meeting is the result of a process embarked upon since April 1986 by the two governments with the creation of a permanent health commission. The commission's major aim is to promote joint programs for fighting contagious and transmissible diseases existing in the two countries; designing improved methods for exchanging information, and strategies for fighting diseases at the bilateral and sub-regional levels; exchanging information on the intergration of traditional healers into the practice of current medical treatment and; finally, seeking ways and means by which the peoples of our two countries can use the nearest and appropriate border health center in either country to save the sick. [end recording]

CAMEROON

Tuberculosis Cases Increasing in Dschang

91WE0378 Yaounde CAMEROON TRIBUNE in English 4 Apr 91 p 4

[Article by Tolefac Anu]

[Text] The chief of sanitation and rural health in Dschang, Mr. Blaise-Martin Tatang, has revealed that the number of tuberculosis patients is steadily on the increase in the area. He made the revelation last January to CAM NEWS during which he said over 52 cases were treated.

Mr. Tatang noted that the preventive health service was already handling another 25 patients suffering from tuberculosis while some eight others have been discharged. He regretted that some of the patients escape the hospital before treatment is completed citing 30 of such cases between 1989 and 1990.

Caprine Pleur-Pneumonia in Ndop

91WE0354B Yaounde CAMEROON TRIBUNE in English 28 Mar 91 p 5

[Article by Christopher Kongo]

[Excerpt] The contagious goat disease known as caprine pleur-Pneumonia is currently killing goats in large numbers in Ndop Sub-Division. The situation is becoming alarming.

As reported by the chief of Sub Sector for the Ministry of Livestock for Ndop, Mr Ndeng Bibiana Ambe, the contagious disease has killed an unknown number of goats in Bamunka, and Bamali and is spreading to other villages.

The first symptoms of the disease are that, the goat starts discharging white mucous from the nostrils, experiences high temperature of about 40.9 c; blood discharge from the nostrils is also reached as it starts passing out watery stool (serious diarrhoea). This stage as explained by veterinary officials is the most dangerous.

In order to prevent the spread of the disease to border towns of North West and beyond, the Divisional Officer for Ndop Mr. Jacob Agbor has issued a Sub Prefectoral decision closing the Bamunka goat market for the time being and the suspension of movement of goats in and out of Ndop Sub-Division. Forces of law and order have been strongly charged to execute this decision.

Talking to CAMNEWS recently, the Chief of the Livestock Centre Ndop Mr. Z.A. Tabifor disclosed that they have dispatched a team of physicians to all the affected areas and non-affected areas as well to immunise all goats and inject the animals that have had the disease already. [passage omitted]

CHAD

Health Authorities Report Increase in Cholera Epidemic

AB3005162091 Ndjamenah RNT Radio in French 0530 GMT 26 May 91

[Excerpt] The cholera epidemic in our country is assuming increasingly disturbing proportions. The disease persists, and the number of victims continues to increase each day in Ndjamenah and in the rest of the country. The situation is so preoccupying that Dr. Mal-loum Kadre, minister of public health, at the head of a large technical team comprising, among others, the

director of preventive medicine and health science executives, arrived at the Lac Prefecture yesterday. The public health boss is also expected to proceed to Kanem. Cases of the epidemic have been reported in the town and its surrounding areas, especially at Ngouri.

Since 11 May when the epidemic was detected, nearly 700 cases have so far been detected, including about 50 dead. These figures concern only cases officially recorded by health services in the capital. The general public is, therefore, advised to strictly observe both personal and food hygiene rules. Special precautions must be taken in the supply of water and the preparation of food in households, and during ceremonies involving large gatherings like child naming ceremonies, marriages, religious feasts, [words indistinct]. [passage omitted]

MOZAMBIQUE

Success of TB Campaign in Nampula Evaluated

91WE0341A Maputo NOTICIAS in Portuguese
26 Apr 91 p 3

[Text] The strategy of the campaign against tuberculosis in Nampula Province—a strategy integrated into the National Health Service [SNS] system—has achieved the objectives of its program in this part of Mozambique despite the negative impact of the problems that confront the nation, our reporter was informed by SNS provincial supervisor Paulo Amisse.

A recent evaluation indicates that the ELAT (TB Campaign Strategy) in Nampula Province is obtaining successes that are being translated into a higher cure rate and fewer cases of abandonment of treatment by comparison with previous years.

Efforts to extend the program to the entire province are being hampered by the conditions that currently afflict all of Mozambican society and more specifically by the war, which has made most of the districts inaccessible. This is the reason why the program is active only in certain selected districts.

In the city of Nampula proper only the Marrere Health Center has a tuberculosis ward, and patients are admitted to the center—which is located in the city's outskirts—when the need for hospitalization is clinically established. Other cases are transferred to Nampula Central Hospital.

The TB program in Nampula is attracting the attention of the entire nation and especially of organizations in the health care field, all the more so because of the estimate—contained in studies seen by NOTICIAS—that there are 200 new cases each year for every 100,000 residents, which would translate into 5,200 new cases.

According to the same studies, approximately 2,000 of these estimated 5,200 cases are diagnosed and treated at the existing health centers, leading to the conclusion that

approximately 3,200 cases are neither diagnosed nor treated, some of whom die within the first few years after infection. The remainder become chronic patients who obviously are transmitting the disease to everyone with whom they come into contact.

Results of the Preventive Measures

Paulo Amisse told our reporter that contrary to the practice in other areas of activity, the results of the preventive measures cannot be calculated, because the BCG vaccine—which protects children against the probability of contracting TB while they are growing—merely reduces their susceptibility to the disease in the absence of medical care. The negative attitude of the patients is often reflected in those cases in which treatment is abandoned before it is completed. This happens when the patient—feeling relatively better—believes he is now well and accordingly leaves the health center on some pretext or other and sometimes without giving any explanation at all.

One detail important to an understanding of the problem that this situation entails is the fact that from eight to 12 months are required for complete treatment of the disease. The lack of good information on what to do to cope with the disease, and the preference for the traditional treatment, are believed to be additional factors that induce patients to leave the health centers.

The situation is such as to lead to the belief—based on the results of a survey—that between 60 and 70 patients out of every 100 who begin the treatment discontinue it before the 12 months are up, as a result of which some of these patients die and others become chronic cases.

The Marrere Health Center—the only health center in the city of Nampula that has a tuberculosis ward—currently accommodates 40 patients.

Displaced Persons To Be Vaccinated in Muepelume

91WE0341C Maputo NOTICIAS in Portuguese
22 Apr 91 p 3

[Text] Persons displaced by the war who have been housed in the center at Muepelume, the administrative post of Natiquir, in the outskirts of the city of Nampula will soon be immunized against a number of diseases as part of the Expanded Immunization Program, our newspaper has learned from Araujo Bassiquete, secretary of the communal unit.

This source says that in addition to the displaced persons, almost all the residents of that area will be immunized. When implemented, the immunization program will make it possible to combat and control a number of diseases that have afflicted the local community.

Araujo Bassiquete added that to this end, a campaign of sensitization is in progress in the area with a view to ensuring that the work will be carried out without any problems of an organizational nature.

Our source did not supply any additional details concerning the manner in which the program will be carried out, but he did emphasize that the information has already been received by the basic local organizations and work is about to begin among the displaced persons and the population in general to lay the groundwork for implementation of the program.

The secretary of the Muepelume communal unit disclosed that the center has housed more than 1,260 displaced persons to date, and that only slightly more than 300 have been living there recently.

He explained that this was because of the improved political and military situation in some regions of Nampula Province thanks to the vigorous actions carried out by the Armed Forces of Mozambique, which have enabled many of the displaced persons to return to their places of origin.

Araujo Bassiquete did say, however, that those who remain at the center have already been given plots of land in the Macassa area, where they are engaged in agricultural activity. He said, however, that despite this fact they are continuing on a regular basis to receive certain products—especially grain—donated by governmental agencies or humanitarian organizations.

He emphasized that only a short time ago they received cornmeal and clothing from the humanitarian organizations of the province, and that this has significantly improved the situation of the displaced persons.

Araujo Bassiquete maintained that the support for the displaced persons was still necessary, but he advocated that "machambas" [farms] be established as another means for their survival. The secretary of the Muepelume communal unit concluded the interview by expressing regret at the attitude of some displaced persons, who chose to return on their own without complying with the bureaucratic formalities required by the authorities for that purpose.

He said that a campaign of sensitization is continuing among the refugees with the aim of arresting this tendency to choose to return in an individual and disorganized fashion.

"In the case of those refugees who have chosen to return to their places of origin in an individual and disorganized manner," Araujo Bassiquete said, "we have no alternative but to cross them off our lists, and if for any reason they decide to come back here we shall not receive them, because, look: they chose to return on their own, and all the houses they left behind have already collapsed because of the rains. Consequently, how are they going to get by?" our source asked. He said efforts are under way to prevent more citizens from returning to their places of origin without fulfilling the legal requirements.

It is known, however, that most of the refugees in the Muepelume resettlement center are natives of the districts of Mutivasse, Mecuburi, and Murrupula.

In another development, our reporter learned from the party committee in the city of Nampula that the approximately 8,496 displaced persons who remain dispersed among the 10 centers established in the city of Nampula are all earning their own living.

According to this source, an inventory made recently by the organizations of the Frelimo [Mozambique Liberation Front] Party in the city of Nampula that are working with the refugees reveals that although food assistance continues to be important, there can be general agreement that such assistance has recently become increasingly less important in view of the fact that the great majority of the displaced persons already have farms on which they can normally produce food for their subsistence. It is a development that is seen as contributing to the complete normalization of the lives of the refugees.

Our source explained that an atmosphere of optimism prevails among the provincial organizations, because in addition to the fact that the displaced persons are returning en masse to their districts of origin, those who remain are continuing to devote themselves to agriculture, and this leads to the conclusion that the refugees will eventually cease to be a source of concern for the provincial authorities.

Nampula, Beira Launch Vaccination Campaigns

*91WE0341D Maputo NOTICIAS in Portuguese
13 Apr 91 p 3*

[Text] National Accelerated Vaccination Program Day—which was observed last Thursday—was celebrated in Nampula and Beira with mass meetings in the municipal districts of Namicopo and Casa de Cultura that were led respectively by Governor Alfredo Gamito of Nampula Province and Governor Francisco Masquil of Sofala Province. The governor of Nampula Province and his wife vaccinated two children against poliomyelitis at the Namicopo Health Center, and Governor Francisco Masquil immunized a child against infantile paralysis.

April 13th was observed in Nampula with a mass meeting at the Namicopo Health Center that was attended by hundreds of persons, mostly women, and also by the archbishop of Nampula, Manuel Vieira Pinto.

Speaking on the occasion, the governor of Nampula Province urged that everyone become involved in the vaccination program, because, he said, this action concerns the entire community and not just the workers of the Health Service. "The involvement of the people in the program must be a conscientious involvement. They must participate not to solve problems or even to invent baseless rumors, as for example calling the members of the brigades bloodsuckers as has occurred in previous

years, with the added negative effect of having these problems devolve upon our children," Alfredo Gamito warned.

For his part, Henrique Pinto Antonio, Director of Health for Nampula Province, said that the program being initiated can produce satisfactory results only if pregnant women are motivated to go regularly for prenatal checkups and only if mothers realize the importance of controlling the nutritional status and development of the child.

"The Health Service is convinced that door-to-door visits will enable it to reach every family," he said. "To achieve this result we must necessarily involve other persons of the urban neighborhoods, villages, and administrative posts and the religious community as well."

In another part of his address, Henrique Antonio emphasized the educational and informational role that the organs of social communication can play with a view to obtaining better results from the vaccination program.

Before the addresses of these two members of the Nampula Provincial Government, several cultural groups presented songs in honor of the day.

How the Day Was Celebrated in the Capital of Sofala Province

Speaking at the ceremony that honored the day at the Provincial House of Culture, Governor Francisco Masquil of Sofala Province said that cleaning up the environment in Beira could help substantially to reduce the incidence of disease.

He said it had become essential that all citizens be involved in an effective way, so that "we can ensure that this campaign will achieve the announced objectives, which are basically not only the vaccination of all children but of the entire population as well."

Before Governor Masquil delivered his address, the audience was addressed by Provincial Director of Health Antonio Bomba and by the representative of UNICEF.

In his impromptu address, the provincial director of health said that in previous years no more than approximately 75 percent of the residents of Beira had been vaccinated. "We hope to achieve, in the current campaign, the figure of 90 percent for the entire province, where 430 of every 1,000 children born die in their infancy," he said.

Beira Authorities Fear Spread of Cholera

*91WE0341B Maputo NOTICIAS in Portuguese
13 Apr 91 p 3*

[Text] Because of the deterioration of the environment, the cholera epidemic that has already stricken 25 people since it broke out (19 in Beira, five in Dondo, and one in Marromeu) and had officially recorded a total of 265

cases as of last Monday, the epidemic has definitely established itself in Sofala Province. This warning was issued several days ago by Dr. Antonio Bomba, the provincial director of health for this region of Mozambique.

NOTICIAS learned in Beira that as of yesterday, at least, there were no indications that the cholera epidemic which is devastating the province has been combated by clinical means (medicines), inasmuch as "the epidemic has definitely established itself."

Commenting on the data contained in the epidemiological report presented at the recent meeting of the provincial government, Dr. Antonio Bomba said they reveal that the age group hardest hit by cholera is the one under approximately 14 years of age.

"For this reason," he said, "the disease is an epidemic, that is to say, it exists locally, is not disappearing, and has now been transformed into an epidemic, in view of the fact that a larger number of cases is being reported."

To prevent the epidemic from becoming a tragedy, Dr. Antonio Bomba indicated that the involvement of the entire leadership of the party, the government, and the community in general is essential to the effort to prevent the spread of the disease.

Breakdown of Cholera Cases by Province

*91WE0352A Lisbon DIARIO DE NOTICIAS
in Portuguese 6 May 91 p 25*

[Article by A.C.]

[Text] The outbreak of cholera which, since April of last year has been plaguing vast areas of Mozambique, has now killed about 300 people out of a total of approximately 6,800 individuals diagnosed as being carriers of the virus of that disease.

Health authorities in Maputo told DIARIO DE NOTICIAS that the provinces of Tete and Zambezia in the central part of the country are continuing to be the hardest hit with regard to the number of deaths and cases of cholera registered. Until now 129 deaths have been reported in Tete and 3,914 persons afflicted; in Zambezia the corresponding figures are 65 deaths and 1,897 individuals suffering from the disease.

In January of this year, the province of Zambezia recorded 91 deaths and 1,922 persons afflicted; meanwhile, Tete Province recorded 42 deaths and 1,402 confirmed cases of cholera.

The disease, which shows a tendency to spread to other areas of Mozambique, is presently affecting seven of the country's 10 provinces, in addition to another for which figures were not attainable as of three months ago. The provinces affected are Tete, Sofala, and Zambezia in central Mozambique, Nampula, Niassa, and Cabo Delgado in the north, and the city and province of Maputo in the south.

The remaining three provinces—namely, Gaza, Inhambane, and Manica—which have not yet been afflicted with cholera, are maintaining a state of alert, consisting in the supply of medications and serums to the hospitals, the training of laboratory personnel in the methods of treatment, and the diagnosis of this disease in the clinics.

In Tete the epidemic is affecting the provincial capital and the districts of Changara and Moatize. In Sofala Province the disease is plaguing the city of Beira and the district of Dondo. In Quelimane, in addition to the city itself, the disease has spread to the districts of Mocuba, Nicoadala, Gurue, Alto Molocue, Inhassunge, Namacurra, Gile, and Chinde.

Official figures indicate that in Nampula the areas affected by the outbreak of cholera are: Nacala Velha, Monapo, and the cities of Nacala and Nampula. In Maputo Province the area affected is the district of Maracuene, and in Cabo Delgado the city of Pemba is the area most affected.

A specialist in epidemiology in the Mozambican Ministry of Health told the DIARIO DE NOTICIAS correspondent that the disease especially attacks the age group below 14 years of age.

"Cholera does not kill so long as treatment is given in time," said our source, alluding to cases of patients who waste a lot of time seeking quacks (traditional doctors) and finally arriving at the hospital with no possibility of being saved.

The effort of the health authorities to combat the epidemic in our country through the development of educational programs is not being supported by society in that serious cases are prevailing through the lack of personal hygiene, basic health measures, and water supply; all of these factors not only facilitate the propagation of cholera in the country but also make it impossible to effect its eradication.

Moreover, a recent study by the World Health Organization, published in one of its recent issues, classifies cholera as an endemic disease of the coastal regions of the African continent, where Mozambique is located, and in which temperature, humidity, the abundance of rain, and populational density all favor its persistence.

Cholera Affects 30, Kills 5 in Xai Xai City

MB2905153591 Maputo Radio Mozambique Network in Portuguese 1030 GMT 29 May 91

[Excerpt] A total of 30 cases of cholera, including five deaths, have been registered in Xai Xai city, Gaza Province, since the disease broke out there on 1 May.

The cholera epidemic has already reached alarming proportions throughout the country. [passage omitted]

Boane District Cholera Outbreak 'Under Control'

MB2905140491 Maputo Radio Mozambique Network in Portuguese 1030 GMT 29 May 91

[Text] The cholera outbreak in the capital of Boane District, Maputo Province, has been brought under control. There has been a substantial decline in the number of infected people reporting to the local health center daily.

Reports from the district say that the decline followed a campaign launched against endemic diseases. A total of 15 people have already died since the cholera outbreak was reported in the first two weeks of May.

New Cholera Cases in Sofala Total 85; 25 Die

MB0406082991 Maputo Radio Mozambique Network in Portuguese 1730 GMT 3 Jun 91

[Text] At least 25 people have died of cholera in Marromeu District, Sofala Province, since March this year. Marromeu District Health Director Bernado Pinto said most of the victims are war-displaced people. A total of 85 cases of cholera were registered in Marromeu District, 62 of them in Marromeu Town Hospital.

The district health director said the Marromeu Town Hospital needs drips, oral mixture, and other medicines to fight the cholera outbreak which could spread if no urgent assistance is forthcoming. Health officials in Marromeu are currently briefing the people on measures to prevent the spread of the disease.

Cholera Kills 29 in Marromeu March-May

MB0806193091 Maputo Radio Mozambique Network in Portuguese 1030 GMT 7 Jun 91

[Text] A total of 29 people died of cholera in Sofala Province's Marromeu District between March and May 1991. A total of 90 cholera cases were diagnosed in Marromeu since the outbreak of the disease early in 1991. Of the 90 cases, 67 were reported at Marromeu Rural Hospital, and 23 in the Baliera region.

The Marromeu District health superintendent said that 11 of the deaths were war-displaced persons living at Cuamba center who did not receive immediate medical care due to lack of transportation.

Cholera Outbreak Under Control in Boane

MB1006180191 Maputo Radio Mozambique Network in Portuguese 1030 GMT 10 Jun 91

[Text] The cholera outbreak, which afflicted the capital of Boane District in Maputo Province, has been brought under control. Leia Nhancale, director of Boane Health Center, said that no single cholera case was reported in the last few days.

Cholera, which broke out in Boane District last April, claimed the lives of 12 people. At present, the most

common diseases affecting the Boane residents, particularly children, are malaria, diarrhea, and anemia.

NAMIBIA

Bubonic Plague Claims 20 Lives in North

91WE0355A Windhoek TIMES OF NAMIBIA
in English 25 Mar 91 pp 1, 2

[Text] As 20 people have died of bubonic plague in northern Namibia since January, the Ministry of Health and Social Services has requested people to keep visits to other people's homes to a minimum, especially during the Easter weekend.

According to a statement released by the Ministry at the weekend, plague is endemic to some parts of Owambo. However, it is unusual to find the disease occurring during the rainy season.

The disease, which has claimed the lives of 20 people since January, has been identified in Ongha, Ohalushu, Onandova, Onyaanya and Oshitayi. During January, 179 people contracted the disease, during February 194 and between 1 and 18 March, 166.

Spraying teams have been stationed at Oshakati, Onand-jokue and Engela and visit the homesteads in the surrounding areas. The local team of health inspectors has been strengthened by two senior health inspectors from Otjiwarongo. A WHO consultant familiar with the disease is in the region and has also joined the team.

Blood specimens drawn from affected patients have been sent to the South African Institute for Medical Research in Johannesburg in order to isolate the possible causative organisms. Health education and information is provided to people over the local radio transmitters.

NIGERIA

Disease Claims 25 Lives in Anambra State

AB3005112491 Lagos Radio Nigeria Network
in English 1800 GMT 28 May 91

[Excerpt] An outbreak of a disease suspected to be cholera or gastroenteritis has been reported in five local government areas of Anambra State. Correspondent Martin Nwoboye, who visited two of the affected areas, now reports:

[Begin Nwoboye recording] The local government areas are Abakaliki, Isieniu, Eza, Ikun, and Ahaoku. The chairman of Abakaliki Local Government, Mr. Christopher Eche, told me that 25 persons have died of the disease in Abakaliki and [word indistinct] community, while (?12) [number indistinct] cases have been reported at (Okpinsimo) [word indistinct]. He said that a medical team from the health department of his council had been dispatched to the area, where the press report was received.

Commenting on Isieniu Local Government area, the council chairman, Mr. Sanni Erike, said the disease was rampant at Omowale, [words indistinct]. Mr. Erike said over (?60) [number indistinct] persons had died since the outbreak of the disease three weeks ago. He said the problem at Isieniu was compounded due to the absence of a general hospital and a government doctor in the entire local government area. This, he regretted, has brought some people of the area to resort to the services of private doctors and of even quacks. [end recording]

Unidentified Disease Kills More Than 15 in Bendel State

AB1006092191 Kaduna Radio Nigeria in English
1700 GMT 6 Jun 91

[Text] An unidentified epidemic has claimed the lives of more than 15 persons at Indiri in Ika local government area of Bendel State. The assistant chief community health officer in the area, Mrs. Ngelegbo, who disclosed this in Agbor, said the victims died in the month of May alone. She however said a health team has been drafted to the town to ascertain the disease. Mrs. Ngelegbo said blood samples of the victims had already been sent to Benin City for laboratory tests, the outcome of which will determine how the disease could be controlled. Victims of the unknown disease are said to be complaining of fever, headache, abdominal pains, and vomiting which have been identified as the symptoms of various infections, hepatitis, [and] yellow, or lassa fever.

SOUTH AFRICA

'Large-Scale' Health Hazard Threatening Transvaal Townships

MB0606174891 Johannesburg SABC TV 1 Network
in Afrikaans 1545 GMT 6 Jun 91

[Text] A large-scale health hazard is threatening residents of certain black townships in Transvaal as a result of the growing financial crisis experienced by local councils. There are indications that the situation can worsen after talks today between the Transvaal Provincial Association and the Civic Association of South Africa, on the suspension of services, failed. [Begin video recording]

Reporter David van der Sandt: Health experts say that the present conditions in certain areas, where there are already piles of refuse, can worsen if services such as electricity, and especially water, is suspended. One of the country's leading experts on the subject of tropical diseases, Professor Margaretha Isaacson, says the conditions are ideal for cholera and other related diseases.

Isaacson: [In English] I think this will have a major effect on the occurrence of diseases that are essentially water-borne and food-borne such as cholera and typhoid and poliomyelitis and dysentery and so on.

Reporter: Cholera is contagious and deadly if it is not treated. In Tumahole near Parys from water-related sicknesses as well as unconfirmed reports of cholera at Katlehong on the East Rand. [Sentence as received] At Alexandra, a large number of people are being treated daily for environmentally-related illnesses.

Isaacson: [In English] The costs, not only in terms of human lives, in terms of human suffering, but even the sheer financial costs of a cholera epidemic is incredible.

Olaus van Zyl: , [Member of the Executive Committee, Transvaal Provincial Administration] In Transvaal, fortunately, there are no areas where the water supply was cut off. There were, unfortunately, two or three places over the past few months where water services were cut off, but fortunately, before it posed serious health dangers, agreements were reached in those towns and the water supply was reconnected. [End recording]

Anthrax Outbreak Reported In Kruger National Park

MB0606124091 Johannesburg South African Broadcasting Corporation Network in English 1100 GMT 6 Jun 91

[Text] At least 100 carcasses of animals which died from anthrax have been destroyed in the northern parts of the Kruger National Park in the past fortnight.

A spokesman, Dr. Vossie de Vos, told our Pietersburg news staff that the latest outbreak of anthrax was a continuation of the epidemic last year.

He said that so far the incidence of anthrax had been restricted to north of the Shingwedze River, and that it was spreading very slowly.

Dr. De Vos said that climatic and environmental conditions later this year could cause anthrax to spread more rapidly. He said staff in the park were not concerned about the latest outbreak, because they viewed anthrax as a natural disease peculiar to that region.

Rare species of game such as roan antelope, sable antelope, and Lichtenstein's hartebeests were being vaccinated against anthrax.

SWAZILAND

Malaria Office Reports 260 Infected in May; 1991 Total 849

MB0406093891 Mbabane THE TIMES OF SWAZILAND in English 4 Jun 91 p 24

[Report by Vusie Ginindza: "Malaria Infects 260"]

[Text] A total of 260 people were infected with malaria last month, the Malaria National Office in Manzini said yesterday.

Malaria Programme Control Manager, Mr. Simon Kunene, warned that the disease is slowly spreading into towns, like Ngwane Park in Manzini.

He said a few cases of malaria had been diagnosed in this area since the death of another malaria victim early this year.

"The cases are quite few for any public significance but they sure are an indication that malaria is there," he said.

The cases last month were the highest since the beginning of this year.

Mr. Kunene stated that as compared to the previous years, during the same period, the figure has shown a significant improvement.

"Last year May, 300 cases were recorded. The year before last, the same month recorded 1,100 cases."

This year in January 50 cases were recorded, February—96, March—193, April—250 and May—260.

This brings a total number of Malaria cases since the beginning of the year to 849.

Only two people have died from it this year. Last year seven people died.

New TB Cases Total 119 in May; No Deaths Reported

MB0806080391 Mbabane THE SWAZI NEWS in English 8 Jun 91 p 1

[Report by Vusie Ginindza: "119 TB Cases"]

[Text] A total of 119 cases of tuberculosis (TB) were recorded last month, reflecting the highest recorded figure of new cases since the beginning of 1991. But there were no deaths.

This brings the figure recorded this year to 588 cases. So far this year, TB has killed 22 people. Last year, same period, 17 people died and 400 cases were recorded. This reflects an increase of 5 deaths and 188 cases from that of last year for the same period.

For the whole of 1990, 80 deaths and 1000 cases were recorded reflecting an average of 8 deaths and 85 people treated for TB each month.

Genetically-Engineered Hemorrhagic Fever Vaccine

91P60167X Beijing YIYAO XINXI LUNTAN [CHINA MEDICAL TRIBUNE] in Chinese 28 Mar 91 p 1

[Article by Wang Jingzhu [3769 2533 3796]]

[Summary] A research group led by Hang Changshou of the Virology Institute, Chinese Academy of Preventive Medicine, has achieved expression of Hantan (Apodemus agrarius) type M-segment viral gene. The genetically engineered Hantan-type M-segment viral gene, the main gene site to produce neutralizing antigens, was transferred to mammalian cells through expression vectors in order to express the antigen-producing gene in mammalian cells. The protective antigen (genetically-engineered polypeptide vaccine) obtained from mammalian cells was then transferred to vaccinia virus by transinfection. A recombinant vaccinia virus expressing the transinfected gene was thus established. McAb Immuno-fluorescence Assay, ELISA and Immuno-Electroscopic Assay used to test gene expressions prove that the obtained recombinant vaccinia virus may be used as a live vaccine to produce hemorrhagic fever antibodies.

Human Plasma Manufacturing Plant Opens in Shanghai

OW2805171091 Beijing XINHUA in English 1459 GMT 28 May 91

[Text] Shanghai, May 28 (XINHUA)—A human plasma manufacturing plant with a production capacity of over 300,000 liters of blood annually began official operation in Shanghai today.

Construction of the plant, which covers over 12,270 square meters, cost over 170 million yuan. Officials from the Shanghai Institute of Biological Products, which is under China's Ministry of Public Health, said that the new plant is the largest of its kind in Asia.

The plant has the capacity to produce normal human serum albumin, human immunoglobulin and other blood products. During the six months of trial operation, the plant produced over 12.5 tons of plasma, according to officials from the institute.

Chen Minzhang, China's minister of public health, and over 200 Chinese and foreign guests attended today's ribbon-cutting ceremony.

State Council Inspects Anti-Snail Fever Work in Jiangxi

HK0406120891 Nanchang Jiangxi People's Radio Network in Mandarin 1000 GMT 2 Jun 91

[Excerpts] The State Council sent a seven-member inspection group, headed by Vice Agriculture Minister Zhang Yanxi, to Jiangxi to discover how snail fever was combated. They have worked in Jiangxi since 27 May.

Governor Wu Guanzheng met and had an informal discussion with the group. Vice Governor Su Huiguo joined them in the inspection.

The inspection group visited Pengze, Yongxiu, and Nanchang Counties in the Poyang Hu region to inspect the project for killing oncomelania in the areas exposed to it and other projects for the same purpose.

The inspection group listened to the report made by the provincial government on the struggle against snail fever and visited various townships and towns to find out how the work to combat snail fever was carried on there.

The inspection group believed that Jiangxi had paid great attention to the struggle against snail fever and emphasized practical results, thus making fairly good achievements. Since the meeting on combating snail fever held in Wuhan in November last year, Jiangxi has further promoted the struggle in a down-to-earth manner and formulated a set of rules and regulations and methods for combating snail fever, which are suited to local actual conditions. Jiangxi has done many solid things in this respect. In particular, they integrated the struggle against snail fever with economic development and with their effort to shake off poverty, providing useful experience in combating snail fever in a new period. [passage omitted]

The inspection group is scheduled to leave Nanchang this evening.

Immunization Campaign Targets Children

OW0806115691 Beijing BEIJING REVIEW in English No 22, 3-9 Jun 91 pp 20-24

[Report by Cui Lili]

[Text] In March this year, Chen Minzhang, minister of public Health, visited an epidemic prevention station in Jinxiu Yao Autonomous County, a place deep in Dayao Mountain in Guangxi Zhuang Autonomous Region. He was told that each and every child in the county had been inoculated against six common infectious diseases—tuberculosis, tetanus, poliomyelitis, measles, diphtheria and whooping cough. The county had done such an excellent job of immunization that no diphtheria cases have been reported in 11 years, no poliomyelitis cases in nine years and no whooping cough or tetanus cases in five years in the county.

Between March and April this year, 284 counties across the country, including such outlying and backward counties as Jinxiu County, were investigated by teams made up of 24,000 people, such as the government officials headed by Minister Chen, epidemic prevention experts (including 16 foreign experts from eight counties) and other personnel. They were satisfied with the immunization of children under 12 months of age and concluded that the inoculation rate of children in all the 2,829 counties reached well over 85 percent. Such an achievement indicates that at least 300 million Chinese children,

including those living in poverty-stricken areas, have been freed from the threat of infectious diseases. "It is an amazing accomplishment," said James Grant, the executive president of the United Nations Children's Fund. He noted that the Chinese children constitute a significant part of the world's total and that the immunization campaign was among the best in the world.

Achievements

Between 1938 and 1949, only 7,500 Chinese people were inoculated with BCG vaccine (Bacille Calmette-Guerin) to prevent tuberculosis. At that time, the incidence of the four major infectious diseases—diphtheria, measles, whooping cough and poliomyelitis—topped 10 million cases annually from among the 400 million Chinese people. These diseases were the main causes of child deaths.

Since the 1950s, the government has put the prevention and control of these acute infectious diseases high on its word agenda. After the successful development and mass production of BCG, measles vaccine for diphtheria, whooping cough and tetanus and a vaccine for poliomyelitis, the incidence of these diseases began to plummet. According to 1979 statistics, the incidence of measles had dropped from 9.445 million in 1959 to 1.717 million cases; whooping cough from 1.583 million to 736,000 cases; diphtheria from 148,000 to 17,000 cases; and poliomyelitis from 17,000 to 5,500 cases. The number of children infected with tuberculosis and tubercle meningitis also dropped drastically.

In 1982, the government promulgated a series of regulations to effectively promote its immunization work, such as regulations for the planned national immunization, the goals for the immunization campaign between 1982 and 1990, basic immunization procedures and measures for assessing the planned immunization.

Early in the 1980s, China participated in activities designed to expand global immunization efforts which were initiated by the World Health Organization. In 1988, the inoculation rate per province reached 85 percent. China's fulfilment of its target won the Chinese Ministry of Public Health in 1989 the United Nations Child Survival Silver Medal.

In accordance with the principles of the World Health Organization's planned immunization work, new standards for the campaign were formulated. The procedures require that inoculation clinics be operated nationwide and that children be inoculated monthly bimonthly or quarterly. In the past 30 years, however, except for such large cities as Beijing, Shanghai and Tianjin, most small and medium-sized cities and towns and the rural areas have managed to implement the inoculation programme once a year. The new procedures also stipulate the date, amount and testing standard for various vaccines. For instance, each child should be inoculated with BCG

vaccine three times, four times with poliomyelitis vaccine, four times diphtheria-whooping cough-tetanus vaccine and two times with measles vaccine before the age of 12.

The central government has made a herculean effort to inoculate the 350 million Chinese children living in the 9.6 million square kilometres of territory while the local governments have played an important supporting role. The immunization technical consulting committee of the Ministry of Public Health composed of a variety of experts has held regular meetings, discussed work progress and put forward its opinions and recommendations on how to improve and speed up the programme. The Chinese Academy of Prevention Sciences has set up a special technical guidance centre, monitoring epidemic diseases and editing and issuing epidemic bulletins. The centre is also responsible for providing technical guidance to the national programme and offering a scientific foundation for planned immunization tactics by the Ministry of Public Health. In addition, under the leadership of the Ministry of Public Health, the national co-ordinating group and six regional planned immunization committees provide unified regional information and consultation services.

Hospitals or epidemic prevention stations and other medical organizations in urban and rural areas have offered immunization services for children. To ensure quality services, between 1985 and 1989, they held tens of thousands of training classes at and above the county level, providing nearly 1 million personnel with immunization training.

In addition, public involvement and the participation of each household has been a major goal of the campaign in recent years. To achieve this goal, efforts were made by government departments and mass organizations. The All-China women's Federation, for example, has often publicized immunization through its 37 newspapers and magazines. It has also provided pamphlets, pictorial posters and slides for women in remote areas through its subordinate organizations. The All-China Women's Federation has also run more than 300,000 parent schools in various localities, and an important part of the course is information about proper inoculation.

Technical Guarantees

Cold-chain construction was one of the major achievements in immunization in the 1980s. Cold-chain construction refers to the series of refrigeration equipment including refrigerator cars, cases and medical kits required from the time the vaccine is produced until it is shipped and delivered to villages via various provinces, prefectures, counties and townships. The refrigeration system ensures the quality of vaccines, guards against ineffective inoculation of vaccines caused by improper preservation and, at the same time, enables various localities to provide regularly scheduled inoculations.

In 1982, in cooperation with the United Nations Children's Fund, the Chinese government tried out a pilot

cold-chain system in hot Guangxi Zhuang Autonomous Region and Yunnan, Sichuan, Hubei and Fujian provinces with a population of 80 million. Take Sichuan Province for example. In addition to the funds from the World Health Organization, and the Chinese Ministry of Public Health, the provincial and local governments at various levels as well as the public generated some 100 million yuan for the construction of cold-chain facilities throughout the province. There are currently cold-chain facilities providing services to 97.09 percent of the area's population.

By the end of 1989, the United Nations Children's Fund offered refrigeration and transport equipment valued at U.S.\$20 million for immunization work targeted towards Chinese children while the central government invested several hundred million yuan. At present, at least 2,600 counties in China's 30 provinces, autonomous regions and municipalities have been equipped with cold-chain refrigeration equipment.

Vaccine Inoculators

The main task of Mao Yuan-mei, 42, who became a rural doctor at the age of 19, is to prevent diseases. Mao has established a comprehensive registration system of all the children in her home village, the Changzhugeng Village in Jiangsu Province. Before any inoculation, she checks her records and afterwards, notifies children of the type of inoculation and the date given. Prior to an inoculation, she gives each child a check-up and then arranges a follow-up for a fixed time in the future. Her longterm, warm and satisfactory service has provided villagers with basic health and disease prevention knowledge. If an inoculation for a certain child is missed, she tries her best to ensure that the missed inoculation is made up.

Mao Yuanmei is only one of the hundreds of thousands of doctors specializing in inoculations in China. These medical workers live in grass-roots units and have a meagre income. They, however, have a strong sense of responsibility and, although their work is both ordinary and at times trivial, they offer the most elementary guarantee that the nation's children will remain healthy.

Zhejiang Province in East China has, since 1984, introduced a method of offering vaccine inoculations by the township hospitals. Sometimes, however, there are only two medical workers available to immunize children in a township or a town with a population of 20,000. Each month they must give children of different ages vaccinations or pills.

A considerable number of prefectures and counties in Yunnan Province, southwest China, are located in mountainous areas. Some villages are located on the top of hills and cannot be reached by vehicles. At inoculation time, rural doctors must travel by foot for a day or more to the county town or townships and then return with the vaccinations.

In order to compensate the hard-working medical workers, some 50 percent of the Chinese counties have adopted an insurance compensation system which stipulates that after birth, each family must pay 10-20 yuan per child to the local commune hospital. The funds are used primarily to compensate rural doctors who offer child services at regular intervals. If the child for whom the money has been paid gets ill, he or she will be able to draw on a lump-sum premium ranging from 30 to 200 yuan in order to pay for medical charges. This system has not only benefited the rural doctors and further strengthened their sense of responsibility, but also enhanced parents' awareness of immunization of their children.

Poliomyelitis

In 1988, the 41st World Health Conference decided to eliminate poliomyelitis by 2000 and the western region of the Pacific put forward the target of eliminating poliomyelitis by 1995. The Chinese Ministry of Public Health responded to the call by formulating and promulgating the "Plan for Eliminating Poliomyelitis Between 1988 and 1995," a plan which demands that the incidence of poliomyelitis be kept below 0.01 per 100,000 and the disease be basically eliminated throughout the country by 1992. No paralytic case of poliomyelitis arising from the virus is expected to be found in 1995.

Poliomyelitis is the second infectious disease to be eliminated by man since the eradication of smallpox world wide in the 1970s. Poliomyelitis is an infectious virus disease of the intestines. Most sufferers of the disease will be lame with some dependency on a wheelchair for the rest of their life. In countries where the immunization and treatment level is comparatively low, the disease also brings about a fairly high death rate. Children under the age of five can easily contract the disease, commonly known as infantile paralysis.

Practice has proved that inoculation is an effective way to eliminate poliomyelitis. If the effective inoculation rate reaches 85 percent of all children, the epidemic disease can be effectively controlled. If the rate reaches well over 90 percent, poliomyelitis can be eliminated.

According to analysis of poliomyelitis epidemics in 1989, there were 4,633 cases of poliomyelitis in China. Although the figure is lower than the incidence reported at the end of 1979, it is much higher than the 1,000 cases reported in 1987. In 1990, the epidemic situation was still not under control as, by November of that year, 3,942 cases were reported throughout the country. Children suffering from the disease numbered more than 100 in 12 provinces and autonomous regions. All of the cases were in rural areas.

After the investigation of poliomyelitis cases in Shandong Province, Zhang Rongzhen, associate research fellow of the Chinese Academy of Preventive Medical Sciences, discovered that most poliomyelitis patients had not had vaccinations and that many of those who missed the inoculation were children born outside of the family planning target. Since the parents had violated local

family planning stipulations, they often moved to other places with their newborns, thus missing out on inoculations. Another important reason is that farmers do not fully understand the need for immunizations; some 88 percent of the people questioned did not know about the value of inoculations. Another problem is that a small number of the children who had taken pills were struck by the disease because they took ineffective vaccines or their hygienic situation was poor. The Shandong investigation pointed out that in areas with a high poliomyelitis rate some pigpens or lavatories were built near wells. This offers poliomyelitis an easy way to spread from excrement to the mouth. In addition, those stricken by the disease drank unboiled water and did not wash their hands before eating and after going to the bathroom.

While the immunization campaign is making progress in large, small and medium-sized cities, there are still a variety of problems in rural areas where 80 percent of the

population lives. In addition to the problem created by those born outside the state family planning target and the low educational level of farmers, there is a serious shortage of funds. At least several hundred epidemic prevention stations at the county level are not equipped with refrigerator vehicles for shipping vaccines. Also, the coldchain equipment put into place some years ago needs maintenance and renovation but there are no funds available for their fulfilment in the near future.

The three documents on eliminating poliomyelitis formulated by the Ministry of Public Health in the first half of 1990 have been issued to grass-roots units. The documents include an overall plan for the implementation of the task, the plan for training professional contingents, the demand for more scientific research and the specific measures which need to be taken. Finally, various localities are now trying to strengthen their management over the floating population so as to ensure that this group of people is immunized.

BURMA**Absconding Elected Representative Dies of Malaria**

BK1505164291 Rangoon Myanmar Athan Radio in Burmese 1330 GMT 15 May 91

[Text] U Si Maung, representative of the National League for Democracy from Lemyethna Constituency-1, who absconded after taking part in the discussions to form a parallel government in Mandalay and a provisional government in the jungle and who was declared an abscondee from law on 4 December 1990, passed away with malaria on 30 January 1991 near Padauk Chaung on Western Yoma Range where he was hiding in a makeshift hut.

U Sein Maung of Kyaungdale village, who was with U Si Maung before his death, Po Thein of Hmankan village, and Khin Maung Win of Tamwe-aye village, who were with U Si Maung when he died, confirmed the death.

Authorities concerned investigated the report at the site of U Si Maung's death and found his skeleton in a makeshift hut near Padauk Chaung.

LAOS**Children Die in Measles Outbreak in Luang Prabang**

BK3005154291 Vientiane KPL in English 0908 GMT 30 May 91

[Text] Vientiane, May 30 (KPL)—Measles has broken out between April and May at Houai Ngat, Houai Tin and Houai Het villages, Nam Heuang Commune, Nam Bak District, Luang Prabang Province, killing more than 10 children under nine years old. Medical personnel of the district public health service have been shortly dispatched to the scenes to cope with the outbreak.

So far, over 300 women and children have been vaccinated.

Malaria Epidemic Reported in Bolikhamsai Province

BK0606043691 Vientiane Vitthayou Hengsat Radio Network in Lao 0000 GMT 6 Jun 91

[Text] A recent report from the public health service of Bolikhamsai Province noted that in assessing the activities of medical personnel in many localities in the province, the spread of many diseases is quite rampant and serious this year, especially malaria. It was reported that an average of 16 percent of the people afflicted with malaria had to be given blood transfusions. To contain the spread of the malaria epidemic, the province's public health service has already dispensed to the public this year 71,707 pills and 1,259 tubes of injectable antimalaria medicine. In addition, it has also educated people about certain sanitation principles and antimalaria measures with a view to checking this epidemic.

VIETNAM**Polio Eradication Program Launched in Hanoi**

BK1106092591 Hanoi VNA in English 0616 GMT 11 Jun 91

[Text] Hanoi VNA June 11—A conference was held here Monday by the Hanoi People's Committee and concerned offices to work out measures to step up the national programme for acceleration of immunisation against and eradication of viral polio right in the current Five-Year Plan (1991-1995).

The measures include the maintenance of the enlarged immunisation against six main child killers for 95 percent of Hanoi children under one year of age, reducing of the infectious disease rate among children by a half, elimination of tetanus among new-borns and reduction of the death rate caused by measles. In particular, the programme calls for eradication of viral polio in Hanoi by 1995.

According to the World Health Organization, Vietnam is among six countries with the highest rate of polio in the world.

ROMANIA

Little-Known Isaccea Leper Colony Visited

91BA0721Z Budapest KAPU in Hungarian No 4,
Apr 91 pp 37-44

[Article by Don Hinrichsen: "Leper Colony in Romania"]

[Text] Miskov Calin is a frail 78-year-old man. There is three-day-old stubble on his swollen cheeks, a cigarette stub between his lips. His eyes are red holes in a framework of pain. His skin is almost translucent, as if it were packaging foil hastily pasted on.

The air is mild, yet he sits idly, bundled up, on a bench under a tree. Light filtering through the leaves sketches motley patterns on his face. Now and then the old man lifts his bandaged hand, and with it punches a hole in the air. Then he just sits and taps his cane on the ground, as he listens to the chirping of birds and the shuffling of his companions in misfortune.

Miskov lives in a quiet and secluded valley, not far from the Danube's delta, near Tulcea. The flower beds are resplendent in the colors of the rainbow. The kitchen garden is nicely kept, and the small cottages are neat and clean. Life here could be idyllic, but Miskov Calin is a leper.

He came from the Soviet Union to the Tichilesti Isaccea leper colony 50 years ago, still a young man, but already nearly blind. He no longer remembers what the world is like. To him time is a long, dark tunnel where there are sounds, voices, and smells, but no light. He was never able to see his two daughters. He does not know where they live. They have not visited him in a long time, and he cannot go anywhere.

Fifty-two lepers live here, all of them Romanian citizens. Two of them have been here since the colony was founded in 1928, and several, like Miskov, for more than half a century. Almost all of them are blind, with disfigured limbs. Some have no ears. Miskov spends his days shuffling back and forth, leaning on his cane, or sitting on his favorite bench. Sometimes two gray-haired old men join him. Their eyes, too, have been eaten away by disease. They sit, sometimes talk, and smoke the cigarettes they have rolled.

"These poor people certainly don't have much of a life," says Gheorge Popa, the leper colony's 34-year-old chief physician, "but they're in good hands here."

The colony has 45 employees, including five nurses and seven medical students. The bandages are changed every morning, and the open wounds are cleaned. Most of the patients receive medical care, but lamperene, the most potent antidote to leprosy, is unavailable.

"We ought to have the drug, because quite a few patients undergoing long-term treatment have become immune

to traditional medication, which no longer does them much good. Treatment with lamperene would be more effective."

The Tichilesti Isaccea leper colony is sustained by donations, most of which come from the Catholic organization called Caritas in Germany. But there is never enough money.

Romania is the only European country that does not send its lepers to colonies in the tropics. Victims of this dreadful disease in the United Kingdom are sent to North Africa, for example, and there is an enormous colony, with roughly 5,000 patients, in Vietnam. Tichilesti Isaccea is the only one in Europe.

It is as if the village did not exist in the present, as if it were plucked from some other era. The whitewashed cottages are flanked by flower beds and leafy trees. Honeybees buzz from flower to flower. Goats and chickens wander the dirt roads that traverse the village. The whole thing has an archaic, medieval aura.

(Right into 1991, there were no flush toilets in the village—only latrines were used. Goods are delivered by horse-drawn carriage.)

Most of the lepers similar to Miskov can still do a little work. They cultivate the 1-hectare kitchen garden, where corn, melons, potatoes, and tomatoes are raised. Those too old or too sick to work in the garden are taught to roll cigarettes. The cigarettes are sold in Tulcea and as far away as 20 kilometers to the east. The garden's produce is also transported to a neighboring village and sold at the local market to earn the colony a little extra money.

Every leper has two rooms. Some of them, however, live alone in little houses on the outskirts of the village.

It is difficult for a visitor to understand the tragedy of leprosy. Most people know about it only from the Bible or historical accounts. It is horrifying to look this disease in the eye. It is impossible to imagine what the poor souls think or feel.

When I ask about his life, Miskov Calin stares at me with a peculiar smile. "I don't remember any other life. I feel as if I've been here since the beginning of time." He misses his daughters, who visited him for about 10 years. He is a fatalistic Russian to the depths of his heart. He is resigned to his fate. "Maybe I'll be luckier in my next life," he says.

Like many of his companions in the leper colony, Miskov attends church once a week. Services are held without notice, and in attendance are those who can see or hear. Miskov is of the Orthodox faith, but no priest has stopped in the village during the past month. The Baptists are in a similar situation: the nearest minister does not come frequently to Tichilesti Isaccea. Nonresidents keep clear of the village. A few close relatives come to visit, but not often.

Prejudice against lepers is still deep-rooted. Many people think you can get leprosy through contact. But leprosy is caused by a bacterial spore that enters the body through the lungs when you breathe. Children under six are the most susceptible, because their immune systems are still not developed. Bacteria that enter the body lie dormant for 20-25 years before symptoms appear.

Leprosy slipped into Romania centuries ago, in all likelihood, from India. It is said that leprosy was introduced by sailors and the children of merchants. But regardless of where the disease arose, the life of those infected is miserable. Modern drugs bring some relief, but the elderly victims of Tichilesti Isaccea have no hope. Most of them became lepers when there was still no way to treat this disease effectively. They are beyond help, they live their lives in darkness, and they draw only on their memories.

It is true that the devotion of the nursing staff warms the heart. But most of the nurses leave the colony as soon as they can. Doctor Popa, who speaks of himself as a saint, often goes hunting, plays cards with staff members, or disappears for a short time to visit his wife and baby in Tulcea. He does not deny that now and then he drinks a glass of domestic wine to dispel the nightmare and loneliness of this place.

The patients cannot go away, even if they wanted to. As I start to leave, Miskov Calin points at me with the gnarled and withered stump that formed instead of a hand. He turns his head toward me and wants to say something. I approach him and hear him say in English: "Good-bye."

As we leave the village, Miskov beckons to us. He flaps his bandaged hand, as if he wanted to fly away.

REGIONAL AFFAIRS

FAO Announces Latin America-Caribbean Cholera Aid

*FL3005174191 Bridgetown CANA in English
1637 GMT 30 May 91*

[Text] Rome, May 30, CANA—The Food and Agriculture Organisation (FAO) has announced assistance to help stem the spread of cholera in Latin America and the Caribbean through projects aimed at controlling food quality, including safety of street foods.

The United Nations agency said a one-year U.S. 150,000 dollars project to control the contamination with cholera of marine and agricultural products had been approved for Peru, currently hit by an outbreak of the disease.

The project will also attempt to reverse the economic effects of the cholera epidemic by establishing a quality certification system for marine and agriculture products.

Projects involving countries neighbouring Peru (Bolivia, Chile, Colombia, and Ecuador) are also being planned, as are sub-regional projects for Central American countries and Panama and the Caribbean countries, FAO reported.

The assistance to be provided will be in the range of one million to 1.2 million dollars.

BAHAMAS

'Poisoning Epidemic in Conch Population' Reported

*FL1306170991 Bridgetown CANA in English
1645 GMT 13 Jun 91*

[Text] Nassau, the Bahamas, June 13, CANA—Bahamian seafood vendors, hard hit by a drop in sales, are pressing the government to find out what is causing a poisoning epidemic in the conch population. On Wednesday, they converged on downtown Nassau in a demonstration against the Ministry of Health.

They complained that as a result of statements by the ministry sales have dropped by 90 percent, resulting in "unnecessary financial hardship, suffering, frustration and, in some cases, starvation." They want the ministry to conduct an intensive investigation to eliminate the contamination problem.

"The elimination of this problem lies in your ministry pinpointing precisely where the problem is. Once this is done, we will be expecting your ministry to restore the public confidence to purchase conchs through the press and media," they said in a letter to Health Minister Charles Carter.

Carter, who spoke with vendors on his way to the House of Assembly, said that in the last month, 506 cases of food poisoning had been recorded at the state-owned

Princess Margaret Hospital. Between May 10 and May 31, 144 people were treated for poisoning, 52 conch-related. But during the first 10 days of June, there were 362 cases of food poisoning, 90 percent of which involved conch, said Carter. Doctors Hospital, a private hospital in Nassau, and private doctors have reported a large increase in the number of food poisoning cases.

Carter withdrew an earlier statement that the epidemic was due to salmonella, the bacteria causing gastroenteritis and sometimes dysentery. He said that conch samples have now been sent to Florida and the Pan American Health Organisation has been invited to take part in an investigation.

Carter said the ministry was trying to devise a solution to protect health standards while allowing vendors to continue to sell conch. He stressed that it is not the ministry's intention to harm anybody's livelihood. A meeting between vendors and health authorities was set for today.

The opposition Free National Movement [FNM] toured the Potter's Cay fish market Wednesday. Spokesman Pierre Dupuch said that the FNM had been warning the government about the level of sewerage in Nassau Harbour since 1982, but that the response had been inadequate. He said the problem could have been avoided had adequate steps been taken.

Carter has said pollution in the harbour is a critical cause for concern, but did not identify it as the source of contamination. He said the contaminated conch came from other areas of the Bahamas.

BOLIVIA

Health Agreement Signed With Brazil

*PY0906033491 La Paz La Red Panamericana
in Spanish 0000 GMT 7 Jun 91*

[Summary] Health Minister Mario Paz Zamora, speaking at Government Palace this afternoon, noted that the agreements signed by him and the Brazilian health minister will help to effectively battle yellow fever and cholera. The minister said the two countries have agreed to establish binational health posts in border areas ranging from the Brazilian town of Corumba to Bolivia's Pando Department.

BRAZIL

Health Minister Notes Total of 15 Cholera Cases

*PY0406192291 Brasilia Voz do Brasil Network
in Portuguese 2200 GMT 3 Jun 91*

[Summary] Health Minister Alcení Guerra, opening the second national meeting for the prevention and control of cholera today, said that only 15 cholera cases have been detected in Brazil so far.

CHILE

Food Industry Not Affected by Cholera

91WE0371A Santiago LA NACION in Spanish
10 May 91 p 4

[Article by Leticia Sotto]

[Text] Santiago—Experts from the Department of Agricultural Technologies of the University of Santiago have concluded that the effects of cholera have not had a negative impact on exports of Chilean marine products and vegetables to foreign markets.

That has been proved by the fact that up to the present, with the exception of Argentina, Chilean customers abroad have not requested sanitary precautions of any kind. In the specific case of Argentina this country is requesting a sanitary certification on vegetables, fish, and shellfish. It even lifted the prohibition on the import of Peruvian products and instituted a prohibition on such products coming from Africa.

This background was provided by agricultural engineers, veterinary doctors, and food specialists of the Department of Agricultural Technologies of the University of Santiago. At a round-table meeting called "The Effects of Cholera on the Food Industry," they discussed the present situation involving the disease.

They explained that, as marine products which are exported abroad come from the southern part of the country, this may be why foreign customers, up to the present, have made no demands for additional sanitary measures and have not cancelled existing contracts.

Fernando Lopetegui, a veterinarian, stated that fresh fish which are shipped abroad, principally Spanish hake, albacore, and eels, are exported by the box and are identified with the symbol "HG." This means that they are exported without tails, heads, or entrails. Other fish products are shipped as fillets, and within this category are fish with and without skins.

Fresh fish and shellfish are shipped from Chile by air from Pudahuel airport. Canned fish products are exported by ship from Valparaiso.

Regarding leafy and other vegetables, no comments have been made in foreign markets as to where fruits, in general, come from. Among these fruits are: apples, strawberries, other berries, cherries, as well as fresh vegetables such as onions and asparagus.

At the round table they fully agreed with the preventive measures and the checks being made by the Ministry of Health. However, they warned that, although the presence of the disease is relatively harmless as of now, this ministry should set obligatory standards on certain, technical aspects related to the handling of foodstuffs.

By way of example Doctor Lopetegui pointed to the case of the super markets where, in his view, the public

should not have so much direct contact with products which are sold there for mass consumption.

Cholera Bacteria Found in Mapocho River

91WE0371B Santiago LA NACION in Spanish
11 May 91 p 1

[Article by Leticia Sotto; first paragraph is editorial introduction]

[Text] Health authorities have warned that there is still a danger of contagion and repeated that preventive measures must be rigorously observed.

Positive evidence of cholera bacteria found by researchers from the Public Health Institute in an irrigation canal which flows into the Mapocho River in Pudahuel means that there is a continuing danger of contagion in the Santiago area.

For more than one week the Public Health Institute has expanded its bacteriological research activity in waters of the rivers and canals of Santiago, specifically to isolate the bacteria, which is the same as that which caused the cholera epidemic in Peru.

Although the report of this institute revealed on 10 May that no new cases have been confirmed in the country and that additional samples suspected of the disease have not been received, Dr. Patricio Silva, acting minister of health, stated that the detection of the bacteria in the waters of the Mapocho River confirms what was already known and which had been reported to the press.

That is, that the bacteria had been found in any case in contaminated waters of Santiago, which infected leafy and other vegetables through irrigation, in this way spreading the disease to the 39 persons confirmed as suffering from cholera by this department of government up to 10 May.

Minister Silva warned that the absence of new cases and the detection of the bacteria provide all the more reasons why the measures of prevention and control adopted by the Ministry of Health should be continued.

He explained that the relaxed attitude displayed by some of the people would endanger the level of control achieved so far at the national level. To have a relative amount of calm, it would be necessary for three months to go by without any new cases being reported.

Silva said that it is necessary to insist that the people eat only cooked vegetables and fish products and continue strictly to apply sanitary food handling practices in their homes.

He also repeated that the Ministry of Health will be very strict in continuing to check places where prepared food is sold and premises where water is served, because these are the surest and most effective ways of obtaining good and effective prevention and control results.

Furthermore, he stated that the cholera outbreak is under control, and this development confirms the correctness of what has been done up to the present. Of the 39 persons ill with cholera 35 are well and are now at home. During the past week only three additional cases were confirmed.

The cholera bacteria found and confirmed on 10 May is the first sample to have been verified as positive, according to information available to the Ministry of Health. Previously, there was a report of two other such findings, but the ministry did not confirm them. The first finding of cholera bacteria was in Arica, and the second was in the Las Mercedes canal. In the first case the toxin of contagion was not produced in the course of bacteriological testing, and it seems that the same thing happened in the second case.

Health Official Reports Nation's Second Cholera Death

PY2805134691 Santiago Radio Chilena Network in Spanish 1700 GMT 27 May 91

[Excerpt] Health Minister Under Secretary Patricio Silva today confirmed the country's second cholera death. Silva noted that the victim was a peasant worker from Penaflores who paid no attention to all the information to avoid the disease. Silva said:

[Begin recording] The Public Health Institute confirmed on 25 May that tests on a patient who died on 23 May show that he died from cholera. He was a 56-year-old peasant worker from Padre Hurtado District who drank unboiled water and ate raw shellfish and undercooked fish on 20 May. [passage omitted] [end recording]

COLOMBIA

Cholera Epidemic Affects Fishing Industry

91WE0359A Bogota EL ESPECTADOR in Spanish 9 May 91 p 2B

[Text] The appearance of cholera in several Latin American countries, which has affected the vital trade and industrial sectors, could reach endemic proportions, reason for which a request has been made to the World Health Organization [WHO] Assembly for support from the international community to combat it.

In Colombia, the devastating disease continues advancing from Tumaco, its initial point of entry, and has spread to the Pacific Coast. It has also appeared in the Amazon region, identified with the high risk zones on the border with Ecuador and Peru.

CONPES [National Council for Economic and Social Policy] has approved a \$2.04 million investment in 37 high-risk communities for patient supplies, community rehydration units, environmental sanitation, information campaigns, operating expenses and laboratories for food monitoring.

However, in Narino the number of deaths continues to rise. Yesterday four more deaths were announced, and patients continue to come in from rural areas.

On the Mata de Platano route, on the Ecuadorian border within the Tumaco municipal district, the deaths of four members of the same family were reported.

The number of deaths has thus climbed to 22, of which 16 were in Tumaco, five in Barbacoas and one in Iscuande, while more than 700 people have fallen ill.

Difficult Situation

However, Tumaco Chamber of Commerce President Dario Garces, while blaming the national government for the difficult economic environment on the Narino coast, demanded that the government initiate an aggressive publicity campaign to end the psychotic fear of fish as a synonym for cholera.

He said that the fishing industry and trade has definitely fallen on hard times, seafood no longer sells, traders cannot obtain credit and sales have dropped to zero.

Natives and foreigners have agreed that the primary causes of the disease's spread—lack of potable water and deficient sanitation—will probably not be eradicated in the near term, but in Latin America prevention campaigns have been initiated calling upon people to thoroughly clean and cook their food.

Bolivian Sanitation Minister Mario Paz Zamora recognized that it is a situation that "cannot be immediately modified nor can improvements be made because they require high levels of investment."

Paz Zamora, speaking on behalf of the Andean countries, indicated that they intend to alert the international community to the seriousness of the epidemic and efforts that the governments are taking to combat it.

Cholera has caused more than 1,200 deaths in Peru alone, and has spread, in addition to Colombia and Ecuador, to Brazil and Chile. Cases have also occurred in the United States.

On the Narino Coast the situation has become alarming and local fishermen have organized a permanent assembly, while they await next Tuesday's airing in Bogota of issues involving the fishing trade and industry on the coast.

COSTA RICA

Health Ministry Announces Statistics on Measles 'Epidemic'

PA0106234391 Panama City ACAN in Spanish 1622 GMT 30 May 91

[Text] San Jose, 30 May (ACAN-EFE)—The Health Ministry announced on 30 May that over the past few months ten people have died, and 1,176 have been

diagnosed with measles in Costa Rica. The outbreak of measles is attributed to shortages of the vaccine needed to combat this illness, which was thought to have been eradicated.

General Health Director Emilia Leon said that the first outbreaks of measles in Costa Rica were detected at the beginning of the year, and since then the disease has been spreading rapidly. She also warned that vaccine reserves in Costa Rica are inadequate to stop the epidemic.

Costa Rica has contacted pharmaceutical companies in hopes of acquiring additional amounts of the vaccine, but Leon indicated that the amount of available vaccine "would seem to be depleted," which was also confirmed by Raul Penna, representative of the Panamerican Health Organization (OPS).

Whatever reserves still left in Costa Rica are being used to immunize infants between the ages of six months and five years, which is the period during which the disease can cause the most damage.

A vast sector of the Costa Rican population did not receive the so-called "triple vaccine" over the past few years since the illnesses it is designed to immunize against (measles, rubella, and mumps) were thought to have practically disappeared from Costa Rica.

DOMINICAN REPUBLIC

Mildew Blights 80 Percent of Garlic Crop

91WE0342A Santo Domingo EL SIGLO in Spanish
26 Apr 91 p 7

[Article by Virgilio Mendez]

[Text] Constanza—The disease of mildew (*Sclerotium Cepivorum*) has contaminated over 80 percent of the garlic fields in this area, reported a researcher from the UASD [Autonomous University of Santo Domingo].

Dr. Quisqueya Perez spoke on "The Garlic Crop and Plant Disease Problems in the Constanza Valley" at a meeting sponsored by C.P. Enterprises with garlic producers, held at the Spanish Club in Constanza.

At the meeting the agricultural chemical Busan was discussed with the farmers. This chemical is being used to control mildew in the area. Perez said that many farmers have lost almost all of their garlic crop for the 1990-91 harvest because of this disease.

She said that mildew also attacks onion crops; the disease was first described in England in 1841, and then in 1902 in Italy.

The UASD professor said there are unconfirmed reports that the disease was brought into the Dominican Republic from Mexico. She stated that the disease has been present in the Constanza farmland for many years.

The primary symptom of mildew is the yellowish color of the garlic leaf. Mildew causes the plant to die from the top downward, said Dr. Perez.

She said that the climate factors affecting the development of the disease are humidity and temperature, and indicated that a pH level under 7 allows the epidemic to spread.

In Constanza, 15,000 "tareas" [1 tarea equals 628 square meters] were formerly planted in garlic every year; because of the disease, only 8,000 are planted now.

The researcher recommended adopting a systematic plant sanitation program to combat the disease, accompanied by the use of agricultural chemicals to disinfect the soil and the seed, and the use of products applied to the parts of the plant above the soil.

Perez said that after the soil has been disinfected, recontamination must be avoided by following a careful plant sanitation program.

Before Dr. Perez, the president of the Constanza Farmers Association, agricultural engineer Victor Manuel Baez, opened the meeting with some introductory remarks.

Baez said that the garlic fields in this area are being decimated by mildew, causing despair among the garlic producers.

Nevertheless, he said that on his farm the disease was brought under control after he began to use Busan 1020. He said the producers need to take a combination of steps to control the disease.

He reported that before the disease appeared in Constanza, 9 to 10 quintals of garlic were produced per "tarea," and now the average is 7 quintals; in addition, in many cases almost the entire crop is lost.

The president of the Constanza Valley Horticultural Producers Association explained that the cost of garlic production per "tarea" is about 6,000 pesos; he said the bulb takes between four and five months to develop fully.

He claimed that at the present time it is not economically worthwhile to plant garlic, due to these high production costs.

In this area there are over 350 garlic producers, who grow the Taiwan and Blanco Peguero varieties. Blanco Peguero was first introduced in the area in 1926, said Baez.

ECUADOR

Extent of Cholera Outbreak in Provinces Noted

91WE0353A Quito HOY in Spanish 25 Apr 91 p 4B

[Text] The cholera epidemic has struck 12 of Ecuador's 21 provinces since it first appeared in February.

The government says that 3,484 people contracted cholera and 85 died of the disease between 28 February and 16 April; unofficial reports, though, claim that 5,000 people have been infected and 400 have died.

Rural areas have been the hardest hit because of the lack of basic services available there.

The rural parts of Imbabura province have become one of the worst centers of cholera infection.

To date, 279 cases and six deaths have been reported there, while the rate of contagion is 15 persons contracting cholera per day.

Areas where the epidemic has proliferated are: Peguche, Imantag, Cotacachi, Tapiapamba, Salinas, Miguel Egas, Agate, and Illuman.

Dr. Patricio Nieto, the chief of epidemiology in Imbabura province, has confirmed the high incidence of cholera in the area; he said attempts are being made to control cholera-related mortality rates.

A high percentage of patients are being treated in the Otavalo Hospital, whose capacity is gradually being swamped.

Two cases have been reported in Santo Domingo de los Colorados in Pichincha province, where the major problem has been the city's trash collection system. Some cases have been reported in the urban parish of Calderon, where one girl has died.

In Chimborazo, approximately 40 people have died and 400 people have fallen ill, primarily because the peasants in the area live in subhuman conditions, without drinking water, waste disposal or trash removal systems. They have managed to control the mortality rate, but not the spread of the disease there.

This week the first cases of cholera were reported in Tungurahua, while about 30 cases have been confirmed in Azuay and Canar.

Along the coast, the hardest hit areas are: Guayaquil, which has a huge poverty belt and about 1,000 cases; Los Rios, where 400 persons have gotten cholera; Esmeraldas, 300 cases; and El Oro, the first province infected by this disease which came in from Peru.

Steps

To stop the spread of the disease, health officials have decided to improve medical care by increasing sanitation crews and primary care positions in several provinces.

In Guayas 40 tanks of chlorine have been provided to chlorinate the water, sanitation crews have been set up to collect trash and provide extensive fumigation with "penitrina".

This Wednesday in Guayaquil, the Guayas health department director, Jose Adum, held a meeting with the

council chairpersons and political leaders of the provincial districts to work out details for the anti-cholera campaign which began on Monday.

Three doctors from India who specialize in cholera are now visiting Ecuador at the invitation of the health authorities to review the anticholera program. They said that the steps taken to treat the disease in hospitals and the laboratory analyses of the bacteria are satisfactory.

Health Minister Reports on Cholera Situation

PA0706230191 Quito Radio Quito in Spanish
2300 GMT 31 May 91

[Text] Public Health Minister Plutarco Naranjo Vargas has reiterated that the cholera epidemic in Ecuador is within tolerable levels. The minister said that the number of cholera cases in high risk areas has diminished, but new cases have turned up in other areas, and in certain places there has been a substantial number of cases reported. Naranjo Vargas has said that there have been no more than 2,000 cases reported, in addition to the 89 people who have already died. Most of these deaths were due to delays in seeking medical assistance.

GUYANA

Georgetown Without Water, Power; Residents Desperate

FL2405233391 Bridgetown CANA in English
2214 GMT 24 May 91

[Text] Georgetown, Guyana, May 24, CANA—The Georgetown water authorities are faced with a huge repair bill after residents burst mains with pick axes when a power outage on Thursday dried up water supplies. Nearly every street in the capital has broken mains and pipelines, sparking fears because of news of cholera in neighbouring South American countries.

It was pandemonium in front of the Guyana Sewerage and Water Commission headquarters in the capital Thursday as residents jostled each other to secure supplies of water through a huge, 600-gallon emergency tank set up outside the compound. In other parts of the capital, mobile water tankers were selling water by the buckets at Guy 20 dollars each.

Electricity woes continued Friday with nearly the entire capital being without power.

Health Plan With Suriname Approved

FL0306160791 Bridgetown CANA in English
1751 GMT 1 June 91

[Text] Georgetown, Guyana, June 1, CANA—Health officials of Guyana and neighbouring Suriname met at the eastern Guyana border town of Corriverton, and approved a six-month cooperation plan on a range of health matters, including defences against cholera.

Under the plan, the health officials of the two countries will pursue cooperation on a variety of topics discussed at the meeting this week, convened under the programme of the Guyana/Suriname Co-operation Council.

A common approach to prevent a possible spread of the current South American cholera outbreak to either or both of the countries was given prominent attention at the meeting.

The treatment of Guyanese cancer patients and training of dental nurses in Suriname, together with vector control, tuberculosis, Acquired Immune Deficiency Syndrome (AIDS), and sexually transmitted diseases generally were also discussed.

Guyana's team included chief medical officer Dr. Edward Sagala and officials from the Guyana Agency for Health Sciences Education, Environment, and Food Policy (GAHEF).

Health Cooperation Talks Held With Venezuela

*FL1006132691 Bridgetown CANA in English
1502 GMT 9 Jun 91*

[Text] Georgetown, Guyana, June 9, CANA—A team of Venezuelan health officials has been having discussions with Guyanese counterparts on possible health assistance and co-operation between the neighbouring countries. The team's programme here included visits to the main state hospital in Georgetown, and health centres across the country to assess infrastructural needs of the institutions. Environmental health and the training in Venezuela for Guyanese health personnel were also issues listed for discussion.

The visit follows a meeting two weeks ago on Guyana/Suriname cooperation in health, held in the Guyana town of Corriverton on the eastern border shared with Suriname. The Guyana/Suriname meeting agreed on sharing information on cholera and also on the establishment of a Sexually Transmitted Diseases (STD) clinic at Corriverton with Surinamese assistance.

Officials Report Outbreak of Measles

*FL1306164691 Bridgetown CANA in English
1546 GMT 13 Jun 91*

[Text] Georgetown, Guyana, June 13, CANA—Guyana's health officials say they are fighting an outbreak of German measles. Coordinator of the Health Ministry's maternal and child health programme, Dr. Rudolph Cummings, said that the cases were confirmed after blood samples of several employees of a corporation here were sent to the Caribbean Epidemiology Centre (Carec) in Trinidad.

A local newspaper here said 50 persons living in one building were affected by the disease, symptoms of

which are fever and swellings behind the head and ears. The disease, which can last up to three days, resembles the ordinary measles.

Cummings said that the German measles is not dangerous and contagious but noted that it can have devastating effects on unborn children under four months. [sentence as received] It can cause deafness, cataract, and severe heart malformations in children, he reported.

The outbreak was reported after the ministry ended what it called a successful measles immunisation programme last month. Some 187,693 children were vaccinated against the disease.

HONDURAS

Acute Respiratory Infections Up Due To Pollution

*91WE0373A Tegucigalpa EL HERALDO in Spanish
1 May 91 p 39*

[Text] Because of the prevailing environmental contamination in most of the country's cities, acute respiratory infections (ARI's) have increased considerably.

In January and February of this year alone, 203,787 cases of tonsillitis, bronchitis, pneumonia, head colds and severe influenza have been recorded.

Acute respiratory infections are more common during the summer months because of the proliferation of smoke and dust, but they have become chronic, and even in winter the population has serious problems.

The Epidemiology Division of the Public Health Ministry maintains a daily record of cases occurring throughout the country. The cities with the most severe problems are Tegucigalpa and San Pedro Sula.

Children are the most severely affected, and infants of between one and four constitute 65 percent of all patients.

Respiratory infections are the country's leading cause of illness and the second largest cause of mortality, a situation exacerbated by the sudden changes of climate that occur.

Of the cases recorded by Epidemiology, 74,057 are light, 71,636 are moderate and 3,141 are serious infections.

PERU

Health Minister Confirms Cholera Epidemic 'Under Control'

*PY0806000891 Lima RTP Television Network
in Spanish 0230 GMT 6 Jun 91*

[Excerpt] Health Minister Victor Yamamoto confirmed today that the cholera epidemic is under control. He

reported, however, that there was an outbreak in the border region of Madre de Dios. [Begin recording]

Yamamoto: We still have some important cholera outbreaks in the Amazon jungle.

Reporter: In what regions.

Yamamoto: We have an outbreak near the border with Brazil in Madre de Dios and also in Pucallpa but we expect to be successful in taking controlling the outbreak as we did in the coastal and mountain regions. [passage omitted] [end recording]

INDIA

Cholera, Gastroenteritis Outbreak Kills 40*BK0106011491 Hong Kong AFP in English 1758 GMT
31 May 91*

[Text] New Delhi, May 31 (AFP)—Some 40 people have died of cholera and gastroenteritis in the northern Uttar Pradesh state during the last few days, the PRESS TRUST OF INDIA (PTI) said Friday.

Hundreds more are inflicted by the epidemics, the agency said, adding that Lucknow, the state capital, and another district of Fatehpur were the worst hit. Some 450 people were suffering from the diseases in Lucknow, PTI quoted government officials as saying.

Anti-Diarrhea, -Cholera Measures in Uttar Pradesh*BK0506120691 Delhi All India Radio Network
in English 0830 GMT 5 Jun 91*

[Text] In Uttar Pradesh, preventive action against diarrhea and cholera is being taken on a war footing in all the districts. An official spokesman said in Lucknow today that divisional commissioners and district magistrates have been directed to ensure proper sanitation arrangements, supply of potable drinking water, and timely medical facilities. He said besides Lucknow, stray cases of diarrhea have come to notice from Fatehpur, Saharanpur, Faizabad, Kanpur City, and Basti District.

IRAQ

Twenty-eight New Cholera Cases Registered 'Last Week'*JN2905140191 Baghdad INA in Arabic 1257 GMT
29 May 91*

[Text] Baghdad, 29 May (INA)—A report released by the Ministry of Health said that 28 persons were infected with cholera in Baghdad and the governorates last week.

The report issued by the ministry today indicated that eight of the cholera cases were in Baghdad, four in Diyala Governorate, four in Karbala' Governorate, two in Wasit, two in al-Qadisiyah, two in Dhi Qar, two in al-Najaf, one in Dahuk, one in Maysan, one in al-Sulaymaniyah, and one in Ninawa. The report added that one case was registered in Baghdad involving an 80-year old man who was hospitalized very late. The other cases are in good health conditions.

Health Ministry Reports 64 New Cholera Cases*JN0506134891 Baghdad INA in Arabic 1240 GMT
5 Jun 91*

[Text] Baghdad, 5 Jun (INA)—The Ministry of Health has announced that 64 persons were infected with cholera in a number of governorates last week.

Dr. 'Abd-al-Amir Khudayyir, director general of the Preventive Medicine Department at the Ministry, told INA that 18 of the cholera cases were in Baghdad, seven in Ninawa, seven in Diyala, three in Maysan, three in Karbala', three in Salah al-Din, 12 in Dahuk, six in Irbil, two in Wasit, two in al-Qadisiyah, and one in al-Anbar.

Dr. Khudayyir said there had been no deaths among those infected. He added that all those infected are now enjoying good health.

Detection of 200 Cholera Cases in May*JN1006171591 Baghdad INA in Arabic 1625 GMT
10 Jun 91*

[All figures as received]

[Text] Baghdad, 10 Jun (INA)—The Health Ministry's specialized committees in May detected 200 cholera cases in Baghdad and the governorates.

A responsible source at the Health Ministry told INA today that the cases were distributed as follows: Baghdad 39, Maysan 24, Wasit 24, Diyala 23, Ninawa 19, Dahuk 17, Karbala' 11, Irbil 7, Babil 7, al-Sulaymaniyah 6, Salah-al-Din 5, al-Najaf 4, Dhi Qar 4, al-Anbar 3, al-Basrah 2, and al-Muthanna 1.

The source said one death was reported, pointing out that preventive and therapeutic measures are effective.

Minister Meets Red Cross Group, Requests 'Urgent' Aid*JN3105122191 Baghdad INA in Arabic 1115 GMT
31 May 91*

[Text] Baghdad, 31 May (INA)—Health Minister 'Abd-al-Salam Muhammad Sa'id has stressed Iraq's urgent need for help from health and humanitarian organizations in carrying out its health and preventive programs in the current phase.

During a meeting with a delegation today, the health minister urged the International Committee of the Red Cross [ICRC] to extend urgent and swift help to Iraq to provide medicine and medical equipment to meet the hospitals' pressing needs, which resulted from the continuous shortage of medicine and vaccines as a result of the economic blockade imposed on Iraq.

They also discussed health conditions and epidemics in Iraq which resulted from the fact that the aggression aircraft have destroyed a number of hospitals and their essential medicine supplies.

The ICRC delegation said their organization was ready to coordinate efforts with Iraq to support health programs and help it overcome the current circumstances.

The ICRC delegation comprises John de Curtan, chief of the ICRC's operations, and Dominic Degure Chebrar, chief of the ICRC's mission in Baghdad. [names as received]

Bubonic Plague Reported in Kazakhstan

*OW0306100091 Moscow INTERFAX in English
1230 GMT 1 Jun 91*

[Text] A 7-year-old girl was brought to hospital at the Saksaulsk Railway Station in the Kzyl-Orda region, Kazakhstan, with symptoms of bubonic plague. Field rats are believed to be the source of infection. Quarantine measures are being taken.

Death Rate of Chernobyl Rescue Workers Rises

*LD1006162391 Kiev Radio Kiev International Service
in Ukrainian 1800 GMT 8 Jun 91*

[Text] According to the data released by the Dnepropetrovsk branch of the Chernobyl association, 255 participants in the elimination of consequences at the Chernobyl nuclear electric power station have died so far. During the last half-year the death rate among these people has doubled.

In a press interview, Mykhaylo Rozvol, the branch's head, observed that the curve of mortality will continue rising. As before, these people, so-called liquidators, are left to face illness on their own. No comprehensive state program of caring for and treating them yet exists.

DENMARK

Blood Supply Contaminated By Hepatitis C

91WE0361A Copenhagen BERLINGSKE TIDENDE
in Danish 22 Apr 91 p 5

[Article by Sten Tolderlund and Kirsten Sorrig: "500 Danes Feared Infected"—first paragraph is BERLINGSKE TIDENDE introduction]

[Text] Doctors fear that the new lethal liver inflammation hepatitis C is far more infectious than AIDS.

Already in December 1989, the Rigshospital and the Aalborg Hospital began to screen all donor blood for the new lethal liver inflammation hepatitis C.

In February 1990, they urged the Health Administration to implement obligatory screening. This was followed, almost simultaneously, by a request from all doctors at the country's blood banks for an obligatory screening. Contrary to the United States and most of the west European countries, Denmark does not yet have obligatory screening.

"As a doctor, it has been a very uncomfortable feeling to know that we risk infecting a large number of people with a serious disease—without being able to prevent it," says Chief Physician Tom Kristensen, director of the Odense Hospital Blood Bank where the donor blood is not screened.

"In March last year, I turned to the hospital administration and informed it that the situation is intolerable; that Denmark is behind in relation to the rest of Europe, and that we must have obligatory screening. The answer was that the county would wait for the Health Administration's decision."

Tom Kristensen is also chairman of the Danish Association for Clinical Immunology—the professional organization for all doctors from the country's blood banks, which previously has urged the Health Administration to implement obligatory screening. It was also the Association for Clinical Immunology that discussed where the first screening-experiment in Denmark would take place.

"The reason why the Rigshospital and the Aalborg Hospital were selected is that the owners of these hospitals were prepared to pay for the tests. We did not have the money here in Odense. This involves about 2.5 to 3 million kroner extra for a budget of approximately 30 million kroner, and we simply did not have the money," says Tom Kristensen.

Nobody knows how many Danes are infected with this new and feared disease. But the experts fear that at least 120 blood donors are infected, and a total of 2,000-5,000 Danes are positive. Aside from blood transfusions, other ways of infection are not yet known.

"We conducted a screening of 30,000 portions of blood last year and we found 80 positive. But as the first tests

on the market were not very reliable, there were many false positive screenings included so that the real number of infected people is probably closer to around 50," says Chief Physician Casper Jersild, director of the Aalborg Hospital Blood Bank.

Chief Physician Tom Kristensen from the Odense Hospital fears that the numbers are even higher. "We do not know how infectious this new liver inflammation is. But we fear that it is perhaps just as infectious as hepatitis B which, in fact, is far more infectious than AIDS," he says and continues:

Each Portion Divided Into Three

"The problem with infection through blood transfusion is intensified by the fact that today we split the blood into three different components. This means that one portion can carry the infection further to three or more different persons. Therefore, it is extremely important that we find all positive donors," he says.

The new type of hepatitis first breaks out after approximately 15 years.

The experts estimate that half of the infected persons will die as a result of side diseases, such as cancer of the liver or cirrhosis of the liver.

Chief Physician Tom Kristensen suggests that a national transfusion council be established under the direction of the Health Administration, so that a faster handling of the matter be secured in the future.

"We proposed this in writing through the Association for Clinical Immunology—but we have not yet received an answer. We feel that there is just as great a need for an effective transfusion committee as there is in the transplant area where a corresponding committee was appointed by the Health Administration.

This cannot continue the way it is. Instead of sending letters back and forth, the parties concerned should be able to meet and solve the problems faster," he says.

Blood Banks Have Warned Against the Danger

It is uncertain whether the politicians in Copenhagen County are being informed about the danger of using donor blood that has not been screened for hepatitis.

In March last year, the directors of the blood banks of the Copenhagen County Hospital in Gentofte and Glostrup, chief physicians Robert Jordal and Ole Drachmann, submitted a memorandum to their hospital administrations about the danger of using donor blood that has not been screened for the hepatitis C-virus.

The matter was referred to the Health Authorities through the county's hospital directorate whose political director is Birthe Hyldstrup (S) [Social Democratic Party], hospital committee chairman. Birthe Hyldstrup says that she thinks, she is not 100 percent certain, she

saw the memorandum from the two chief physicians in the fall of 1990. In any case, she did not see any reason to react to it herself.

"It is possible that I saw a memorandum but it has not been discussed at any time."

Birthe Hyldstrup does not want to comment until she has had the opportunity to study the matter today.

The chief of the hospital directorate, county hospital director Frank Vilhelmsen, cannot disclose whether the directorate has made the county politicians aware of the memorandum from the two chief physicians.

"I cannot answer that until I look into the matter," says Frank Vilhelmsen. He states that it is normal practice to send memorandums from hospitals to medical experts in the Health Administration for comments before they are presented to the politicians. But it does happen that the politicians are informed simultaneously. "When we received the memorandum 1 year ago, the serious consequences were not present. That was what the Health Administration was to comment on," says Frank Vilhelmsen.

The Rigshospital and the Aalborg Hospital, however, realized the danger long before that, and in December 1989, they began screening blood. This was their own initiative and the two hospitals continue to be the only ones here at home that screen the blood.

In February this year, the Health Administration recommended to the Ministry of Health that it become mandatory to screen all donor blood in Denmark for hepatitis C.

But the Ministry of Health has not yet made any decision in the matter.

Chairman of the Federal County Hospital Council hospital committee, Knud Andersen (V) [Liberal Party], said that he has not heard anything about this until now.

NORWAY

Three Hundred Cases of Tuberculosis Occur Every Year

91WE0380A Oslo AFTENPOSTEN in Norwegian
22 May 91 p 6

[Article by Hanna Hanes: "300 Persons Contract Tuberculosis Every Year"]

[Text] Nearly every seventh adult Norwegian has tubercle bacilli in his body. Miniepidemics therefore break out several times a year, as has now happened in Frosta in North Trondelag.

The father of a family was admitted on Ascension Day to the regional hospital in Trondheim. He had tuberculosis. Two of his children and five other children in the neighborhood are also infected. Three of the children are

sick and have now been treated. All can count on a complete recovery. Yesterday the county physician in Frosta began taking numerous samples to uncover the original source of infection.

"We see such miniepidemics at regular intervals. Last year there was one in Nordkapp County," says Kjell Bjartveit, medical director of the State Health Survey (formerly the State X-Ray Administration). The State Health Survey still has buses in which it drives around. At regular intervals, those most vulnerable to infection are called in for a checkup.

"Risk is based on whether a person was previously infected and therefore had a positive Pirquet's test, and whether scars formed on the person's lungs. Elderly people, especially men, are more vulnerable. Roughly 6 percent of the adult population belongs to this high-risk group," says Bjartveit.

In the 1980's, the number of tuberculosis cases remained stable and hovered at 300 a year. But from 1989 to 1990 the number increased by 13 percent, to 333. It is not known whether this is a coincidence or the sign of an authentic increase.

"A similar trend has been noted in other industrialized countries. If there has been an authentic increase in Norway, it may be primarily due to the fact that physicians and the public are less aware of this disease than before. A person goes around coughing for a few weeks and thinks it's due to smoking, or catching a cold, or something else. When that person goes to his doctor, the latter first thinks of diseases like asthma or bronchitis," says Bjartveit. He points out that it may be a while before tuberculosis is discovered and in the meantime other people can become infected. It also happens that patients die misdiagnosed, i.e., the actual cause of death was tuberculosis, but it was not discovered in time. Other reasons for the possible increase are the influx of immigrants and the fact that more people are traveling to countries where tuberculosis is endemic. Internationally, the HIV scourge has also caused the tuberculosis statistics to skyrocket. The World Health Organization now records 10 million cases of tuberculosis a year. Those infected with HIV run a much higher risk of contracting tuberculosis because their immune systems are impaired.

Effective Treatment

"The outlook is excellent if the disease is discovered in time. If one receives proper treatment, there is very little risk of relapse. On the other hand, those who were once infected but did not receive the day's most effective medication run a certain risk of recrudescence. We estimate that one out of ten in this group will become sick sooner or later. Tubercle bacteria lie dormant in the body. But stress or another disease can cause them to start reproducing," says Bjartveit.

Three Families

Children from three families in Frosta are infected, reports ADRESSEAVISEN. The family father who became sick had been vaccinated. In rare cases, people become sick despite vaccination. Norwegian children are vaccinated in the sixth grade. Because of the vaccine's side effects, it is undesirable to vaccinate young children routinely.

The symptoms of tuberculosis are loss of appetite, night sweats, coughing with expectoration, and occasional rashes that look like mosquito bites. The best prophylaxis is to stay in good condition, wash your hands before meals, and not cough on other people.

Meningitis Outbreak Century's Fourth Largest

91WE0380B Oslo AFTENPOSTEN in Norwegian
23 May 91 p 5

[Article by Liv Hegna: "Another High School Senior Is Infected"]

[Text] Another high school senior is infected with cerebrospinal meningitis, this time in Drammen. But the senior opposes cancellation of the big graduation party that was supposed to be held this weekend at Hellerud-sletta north of Oslo.

Wednesday a high school senior from Drammen was admitted to Buskerud Central Hospital with meningitis. That makes nine cases of meningitis recorded among this year's seniors, most of them in the Oslo area.

The director of the Drammen High School will request vaccination of the entire senior class if the meningitis proves to be infectious.

The county medical director in Skedsmo has canceled the big graduation party for 3,000 eastern seniors scheduled for this weekend at Hellerudsletta north of Oslo. Senior class president Roger S. Sedal tells the Norwegian News Service it would have been less harmful if the senior graduation party went on as planned, on a somewhat reduced scale. The reason is that in place of the party a trip to Denmark has been arranged and "there will be no less intimacy." Meningitis bacteria are transferred by kissing and other intimate contact.

At the hospital in Moss on Wednesday, a girl was admitted who thought she had meningitis. The on-duty physician denied to AFTENPOSTEN that she is infected with the disease, but the hospital has chosen to let her stay over for a few days' observation.

Bodolf Hareide, director of the State Institute for Public Health, tells AFTENPOSTEN that Norway is now experiencing the fourth largest epidemic of meningitis in the last 100 years. The first occurred in the 1880's, the next two in connection with the world wars. The current epidemic began in the mid-1970's. None of the earlier epidemics has lasted as long. The record was set in 1983, with 387 known cases. A project to study the disease is now under way.

Norway is among the countries of the world with a high incidence of meningitis, followed by Cuba, Brazil, the Faeroe Islands, Denmark, the Netherlands, and England.

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